THE CHALLENGE OF LEARNING TO SPEAK ABOUT THE PAST

Ioana STOICESCU
Universitatea din Bucureşti

Abstract

Very young children face the daunting task of learning how to describe objects, events and experiences. Previous studies have shown that children are cognitively equipped to think about past events very early on. However, despite being able to mentally represent past experiences, children still have to learn the linguistic means to make these representations available to their interlocutors. A widely debated question in the study of children's time talk is whether the temporal system children build is similar to that of adults. The aim of this paper is to address this question.

Key-words: language acquisition, past tense, lexical aspect

1. Introduction

Early child speech is characterised by adults as 'fragmented' or 'full of mistakes' as children sometimes omit functional elements like determiners or auxiliaries. For instance, Avram & Coene (2001: 408, 409) report that, in child Romanian, the indefinite articles are initially ommitted, as is the auxiliary in the *perfect compus*:

(1) C: Bătut. (child A., 2 [years];0 [months], Avram & Coene 2001: 410)

However, such 'errors' are worth studying because they reveal something about the internal mechanisms and functioning of the child grammar. In this way, language acquisition studies become valuable for theoretical linguistics, since child language represents further testing ground for hypotheses about Universal Grammar and theoretical models of natural languages (Rizzi 1993: 373).

This paper is concerned with the acquisition of past temporality by young children speaking Romanian. The present paper concerns three main aspects. Firstly, we will show that there is psychological and linguistic evidence that very young children are able to think and talk about the past. Secondly, we will present the developmental stages of children's temporal system. A third issue we wish to explore is the way in which the emerging past tense morphology interacts with aspect, whether the use of past tenses is determined or influenced by aspectual distinctions.

2. Children's Capacity to Think and Talk about the Past

Smith (1980: 263) indicates that the acquisition of language devices to express temporality (i.e. tense morphology, adverbials) proceeds slowly. This fact is explained through: 1) the syntactic complexity of the temporal system, 2) the semantic complexity of temporal concepts, 3) the necessity for a certain level of cognitive development to be attained. However, as far cognitive development is concerned, Nelson (1991) and Weist (2009) believe that the acquisition of language helps the child to better understand temporal notions and to form clearer mental representations of past events: "when children begin to learn how to communicate their experiences, they have the potential to construct and to remember representations of those experiences" (Weist 2009).

Current studies on the acquisition of temporality focus on the following crucial questions.

Q1) Are very young children cognitively equipped to think and talk about past events?

Q2) How is their temporal system organised?

Q3) Is the child's temporal system similar to/different from the adult's temporal system?

Q4) In what order do the linguistic expressions of temporality appear?

Let us take these questions in turn. The first question concerns the cognitive capacity of very young children (i.e. babies and toddlers) to think and talk about the past. Following Piaget's groundbreaking theory on children's cognitive development, the research of the 1970's was dominated by the idea that around the age of 2 the child is unable to 'decentre'. This means it is only possible for him to focus on objects and actions which are available for direct observation. Past or future events are outside the realm of immediate perception and thus are unavailable to the child. For instance, Fraser (1987) (reported on in Nelson 1991: 288-289) claimed that 'the nonlinguistic creature (human infant or non-human animal) lives in an

eternal present.' Is this true? If time were an 'an eternal present' for children aged 0-2 years, it would mean that they could only think about events that are recently finished or in progress, never about events in the remote past. According to Weist (2009), 'children' s thinking would be limited to the here-and-now of the immediate perceptual environment where they might be able to think about a completed state or an ongoing action, but they would not be able to construct and retrieve a representation of an event in their lives.' Nevertheless there is evidence that the contrary is true, namely that very young children have the cognitive capacity to think about events in the remote past. On the one hand, we have evidence from studies on children's cognition and memory and, on the other hand, there is also linguistic evidence to this effect. The first type of evidence comes from studies on child development and the second type from research on language acquisition. We will discuss the first type of evidence in what follows.

According to Bauer & Mandler (1989: 197), research into 'symbolic play' patterns demonstrates that, by 2;0, children *can spontaneously enact sequences of two events while playing*. These authors also report that 'the number of ordered actions that children produce in elicited play doubles between 20 and 28 months of age' (1989: 197). If children can put two events in a sequence while at play, this means that they also construct mental representations of those sequences and that they are able to think about 'what comes first' and 'what comes second.' Although this finding does not directly demonstrate that the past is available to the child, it does indicate that a certain notion of temporal order is accessible to him, which is important if we bear in mind that a past event presupposes a temporal ordering between the event per se and the speech event. If the child can think about 'what comes first' and 'what comes second' we have some reason to expect him to be able to think about ''what came before' and 'what is happening right now at the time of speaking.'

The evidence above is strenghened by the research conducted by Bahrick & Pickens (1995) (reported on in Weist (2009)). This study showed that 4 and 6 month-old babies have 'recognition memory' of objects and movements seen in the past. The 3 month-old babies were shown an object in a certain type of motion for 2-3 minutes. Then 2 stimuli were presented at the same time: the object in the motion shown before and the object in a new type of motion. The babies preferred to look at the new motion after a delay of 1 minute, but looked at the familar motion after delays of 1 month and 3 months.

In a different experiment, Bauer & Mandler (1989) tested 2 groups of children aged 16 and 20 months. The experimenter presented three types of sequences of actions and then gave the props (toys) to the children and asked them to imitate them. The event sequences were

either familiar to the child (e.g. undressing a toy, placing it in a tub and washing it), 'novel-causal' – in the sense that the child had not been exposed to such events before and there was a causal relation between the events in the sequence -, and 'novel-arbitrary' sequences – which had not been seen before by the child and where no causal relation existed between the events. Both 16 month-olds and 20 month-olds remembered and were able to imitate all types of sequences on the spot. The test was repeated after 2 weeks, only this time there was no modelling from the experimenter, only a presentation of the old props. This time the younger children (1;4) remembered and were able to perform only the familiar sequences. Yet the 20 month-olds (1;8) could remember all types of sequences. This shows that at the age of 1;4 children remember past yet familiar sequences of events, while children aged 1;8 remember past event orderings even when they are unrelated causally.

We have shown that, from very early ages (even as early as 4 months), children have the mental capacity to think about and remember past events and objects. All the above experiments expected a delayed recalling of such past events and objects - 1 to 3 months, in the first study, 2 weeks in the second. All these intervals could not qualify as 'recent past,' only as 'remote' or 'relatively recent' past, and children seem to be able to retrieve memories of events placed in either type of interval, not just in 'the recent past' as Piaget would have us believe.

Moreover, longitudinal corpora of early child language contain ample evidence that children not only think, but also talk about past experiences, even when their language skills are not yet fully developed and when their use of past tense morphology has not reached the adult standard. For instance, Bowerman (1981) reports that her daughter Christy, aged 1;9, when spotting a puddle she fell into the day before, tries to describe the incident even with very precarious means:

(2) C: Sipi wa. (Christy, 1;9)

A month later Christy makes full use of the appropriate past tense morphology to refer to what happened while her uncle was carrying her on his back earlier on the same day:

(3) C: I cried.

Examples (2) and (3) contain references to single past events. Yet children as young as Christy may also describe sequences of two events, as in (4), where the child describes an incident at the zoo:

(4) C: Try eat lid. (1;8, Smith (1980: 271), ex. 14)
A: What tried to eat the lid?
C: Try eat lid. Goat…man said no…goat try eat lid…man said no.

Nelson (1991: 297) argues that young children are even able to build narratives involving a complex temporal structure and multiple reference times. In fact, child Emily "is able to use different events as references for subsequent ones" Nelson (1991: 298).

(5) C: My sleep. (Emily, 1;10, Nelson 1991)
Mommy came.
And Mommy get up, get up time go home.
When my slep and.
And mormor came.
Then mommy coming.
Then get up, time to go hoome.
Time to go home.
Drink p-water.
Yesterday did that.
Now Emmy sleeping in regular bed.

Nelson (1991: 298) maintains that the above monologue constitues evidence that 'the ability to manipulate time relatons appears in connected discourse before its appearance in single sentences. Thus conclusions about cognitive constraints drawn from sentence grammars or the use of lexical terms can be misleading.'

In conclusion, our first question receives an affirmative answer. Young children do have the capacity to think about events in the past. This conceptual 'readiness' allows them to tackle the very difficult task of identifying the language forms that express 'pastness'. Let us move on to our second question regarding the organisation of children's temporal system.

3. Children's Temporal System

According to Reichenbach (1947), the semantics of tense presupposes a relation between three time intervals: the *event time* ET, the *speech time* ST, and the *reference time* RT. The third time interval is necessary for the interpretation of perfect tenses. ET and ST allow only three combinations (i.e. the simple tenses). In (6) *in 1950* represents the *reference time* RT. The diagrams at (7) illustrate the configurations of the three time intervals or temporal parameters for six English tenses.

(6) *In 1950* Hitler had died. "in 1950" = RT

(7)

Present Simple: ----------x----------
ET, RT, ST
Past Simple: ----------x----------x----------
ET, RT ST
Future Simple: ----------x----------x----------
ST, RT ET
Present Perfect: ----------x----------x----------
ET ST, RT
Past Perfect: ----------x----------x----------x----------
ET RT ST
Future Perfect: ----------x----------x----------x----------
ST ET RT

Starting from this model of the adult temporal system, Weist (1986) suggests that the child goes through four stages or "temporal systems": 1) the *speech time system* (age 1;0 -1;6); 2) the *event time system* (1;6-2;6); 3) the *restricted reference time system* (2; 6- 4;0); 4) the *free reference time system* (4;0 onwards). During the *speech time system*, the child processes only one temporal interval (ST = RT = ET) and there is an emphasis on the here-and-now. At this stage, children do not make tense, aspectual, modal distinctions. This might be interpreted in two ways, either that 'child language is tenseless' (Van Geenhoven 2008: 172) or that 'the only tense at this primary stage is present tense' (Smith 1980 reported on in Van Geenhoven 2008: 190, fn. 3).

The *event time* system begins with a transition period between ages 1;6 - 2;0. During this transition stage, the child is already able to make tense distinctions between the past and the non-past, aspectual distinctions between the imperfective and perfective viewpoints in Slavic languages, and modal distinctions (Weist 1991: 67-68). During this phase the child separates ET from ST, but not RT from ST. The child can place ET before/at/after ST, hence

he can describe past, present and future events (ET =/= ST). The reference time is still not independent, it is fixed at ST (RT = ST).

The *restricted RT system* starts at 2;6-3;0 with the onset of the use of temporal adverbs and clauses which indicate the RT (Weist 1991: 69). During this stage the child can separate ET from ST (ET =/= ST) and RT from ST (RT =/= ST), but he keeps RT fixed at ET (RT=ET). He can describe past, present and future events with the appropriate tenses, but is unable to describe events in which the ET precedes the RT (e.g. he would not use the Romanian *mai mult ca perfect*). Thus "while RT is functional within the system, the complexity of temporal configurations is limited to relationships between two intervals in time" (i.e. ET and ST) (Weist 1991: 69).

During the final *free RT system* children finally separate the RT from ET. Thus RT is no longer fixed, but flexible. The temporal system of the child includes 3 separate time intervals and this allows for the emergence of the past perfect (around 4;0-4;5) and the onset of connectives like *before* and *after*. In answer to the third and fourth questions we asked at the beginning of this paper we can say that the child's temporal system is initially less complex than the adult system (only ET and ST, fixed RT), but it gradually proceeds to the adult standard. The simple tenses (present, past, future) precede temporal adverbs and clauses, which, in their turn, precede temporal connectives and the past perfect.

4. The Lexical Aspect of Early Past Predicates

A very general aspectual classification separates predicates into telic (change of state, resultative) verb phrases (e.g. *I drew a circle*) and atelic (homogenous, non-resultative) verb phrases (e.g. *I am crying*). In many child languages (English, Polish, Mandarin Chinese, Turkish) there is a preference to use present/progressive/imperfective morphology with atelic verbs, and past or perfective morphology with telic verbs. We investigated a longitudinal corpus of child Romanian to see whether the same tendency existed here as well. The corpus contained 370 verbal utterances (84% *prezent*, 26% *perfect compus*) selected from a a total of 9644 child utterances. The age range was 1;5-2;2 and the two children studied were recorded for 18 hours. The recordings were mostly done and transcribed by L. Avram in CHILDES format (MacWhinney & Snow 1985). The first tense used in the corpus was the present, and the first past tense attested in the corpus was the *perfect compus*, followed by the *imperfect*:

(5) A: unde se pune mamă baticuțu(l) ăla? (…)
A: unde e?
C: ce-a pus? (1;6)

(6) a. A: te-am învins!
C: a învins! (1;11)
b. C: luat cana mea. (2;0).

We analysed the present and *perfect compus* predicates in the corpus dividing them into telic and atelic verb phrases. The results are shown in Tables 1 and 2. The majority of present predicates are atelic (70%) and most predicates marked for the *perfect compus* are telic (76%). This confirms that the tendency mentioned at the beginning of this section exists in child Romanian as well. Lexical aspect influences children in their choice of tense morphology.

Table 1: Present predicates

Present	No. pred.	%
Telics	93	30
Atelics	218	70

Table 2: *Perfect compus* predicates

PC	No. pred.	%
Telics	45	76
Atelics	14	24

5. Conclusions

This paper disconfirms the notion that very young children experience time as an 'eternal present.' Studies in the area of child memory and cognition support the idea that, even in infancy, children are able to retrieve from memory representations regarding objects and events witnessed in the past. Children very quickly learn how to order events in a sequence, being helped by the familiarity or the causal nature of the sequence. It would seem that temporal concepts are at the centre of children's experience of the environment and that language facilitates further development of these concepts. While learning the linguistic means to express temporality (i.e. tense morphology, adverbials), children also develop a system of temporal parameters that allows them to interpret and manipulate these language forms (speech time, event time and reference time). Their employment of these temporal intervals is first restricted to one, then two intervals, proceeding slowly to three independent intervals. In addition, the use of tense morphology is initially influenced by the lexical aspect of the predicate, past tense morphology being preferred in the case of telic verbs.

Bibliography

1. Avram L. & Coene M. „Achiziția categoriilor funcționale în limba română." *Actele colocviului catedrei de limba română – 22-23 noiembrie 2001*. Bucureşti: EUB, 2001, 405-14
2. Bahrick, L. E. & Pickens, J. N. 'Infant memory for object motion across a period of three months: Implications for a four-phase attention function.' *Journal of Experimental Child Psychology*, 1995, 59, 343 – 371
3. Bauer Patricia J. & Mandler Jean M. 'One Thing Follows Another: Effects of Temporal Structure on 1-to-2-Year-Olds' Recall of Events.' *Developmental Psychology*, 1989, 25 (2), 197-206
4. Bowerman, M. *Notes for the Nijmegen Workshop*. Nijmegen: MPI, 1981
5. Fraser, J. T. *Time, the Familiar Stranger*. Amherst: University of Massachusetts Press, 1987
6. MacWhinney, B. & Snow C. 'The Child Language Data Exchange System.' *Journal of Child Language*, 1985, 12, 271–96
7. Nelson, Katherine. 'The Matter of Time: Interdependencies between Language and Thought in Development.' S.A. Gelman & J. Byrness (eds.). *Perspectives on Language and Thought, Interrelations in Development.* Cambridge: CUP, 1991, 278-318
8. Reichenbach, H. *Elements of Symbolic Logic.* NY*:* MacMillan, 1947
9. Rizzi, L. 'Some Notes on Linguistic Theory and Language Development: The Case of Root Infinitives.' *Language Acquisition*, 1993, 3.4, 371-93
10. Smith C. 'The Acquisition of Time Talk: Relations between Child and Adult grammars.' *Journal of Child Language*, 1980, 7, 263-278
11. Van Geenhoven V. 'Time for Children.' V. van Geenhoven (ed.). *Semantics in Acquisition*. Dordrecht: Springer, 2008, 167-192
12. Weist, R. 'Tense and Aspect: Temporal Systems in Child Language.' P. Fletcher & M. Garman (eds.). *Language Acquisition: Studies in First Language Development*. Cambridge: CUP, 1986, 356-374
13. Weist R. et al. 'A Cross-Linguistic Perspective on the Development of Temporal Systems.' *Journal of Child Language*, 1991, 18, 67-92

14. Weist R. ‘Children Think and Talk about Time and Space.’ P. Łobacz, P. Nowak & W. Zabrocki (eds.). *Language, Science and Culture*. Poznań: Wydawnictwo Naukowe UAM, 2009 (in press)

Ioana Stoicescu is a PhD student with the University of Bucharest. She is working in the field of language acquisition, focusing on the acquisition of past tenses and their interaction with lexical aspect.