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## THE TEXTUAL PRE-CONDITIONS FOR ACTION NARRATION IN CHILDREN'S STORY CONSTRUCTION\*

This research focuses on the way children's conceptual organization shapes their narrative performance. 38 children aged 9 and 12 were presented with 26 short periods that could be the beginnings of a story they had to continue. Three different kinds of story plot were devised. There were emotion-based, object-based, and social-role-based plots. Different topics led to different ways of structuring the story and the same topic led to different ways of shaping the story at the different ages of the narrators. An overall increase with age in thematic cores or 'idea units' produced was found. Stories become longer and more elaborated. References to actions, events, as well as to new agents, increase with age. These underlying structures found in children's stories are conceptual rather than linguistic as they pertain to the organization of knowledge. As linguistic competence at ages 9 and 12 is already fully developed, this difference in storytelling can be attributed only to greater general world knowledge in older children.

In the developmental literature, the recent rediscovery of the Vygotskian views on children's language acquisition and its re-reading by Bruner (1986;1990) has widened the study of children's narrative production. Beside the study of story production along the lines of the traditional text linguistic and sociolinguistic approaches, children's stories are now conceived of as social constructions embodied in culture. This new perspective rests on strong constructivist claims that we agree with, and coheres well with the views of linguists interested in narrative such as Chafe (1990), or of developmental psychologists who pioneered the field, such as Peterson & McCabe (1983), Mandler (1984), Bamberger (1987), Nelson (1986,1989), McCabe & Peterson (1991), and many others.

The constructivist stance has promoted a growing interest in the analysis of children's spontaneous linguistic productions in monologue and dialogue, and in the beginnings and development of narrative production and storytelling. This kind of research has been carried out in several, well-defined areas ranging from cultural influences on narrative production to strictly linguistic aspects of children's narratives, as well as to the role of narrative in the development of the child's self.

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Much less attention, however, has been paid to the study of the cognitive constraints which shape the narrative performance in children, or, to put it differently, of the way children's conceptual organization shapes their narrative performance.

According to Bartlett (1932), another radical constructivist, memory, hence knowledge, is an ever self-updating mass of schemata which allows people to continuously experience in a unique way what is going on in the world and, accordingly, to reset the previous schemata. The working of the schemata, in Bartlett view, is not unconstrained, but is directed by the instincts, interests, and dispositions – modelled by membership of a social group in a particular culture – of the experiencing subject as well as by the characteristics and properties of the experienced world.

It is our opinion that this view can be aptly and coherently enriched with the constraints resulting from the structure of the very conceptual organization of knowledge – of the mass of the schemata, and that narrative production is an ideal natural laboratory enabling us to see these constraints at work as they highlight the structure of conceptual knowledge reflected by language.

In fact, in a narrative performance, the narrator is free to choose a topic and build on it a more or less complex construction of content which coheres, and hence is meaningful, so that it can be easily understood by the addressee. However, to be coherent and understandable, this construction cannot be haphazard, but has to be organized in a particular way so that the content already produced constrains that which will follow.

The present research aims to show precisely how the topic of the beginning of a story compels a certain kind of continuation. Our hypotheses are, first, that different topics lead to different kinds of continuation and, secondly, that, if the same topic leads to different kinds of continuations at different narrators' ages, the constraints are not of a linguistic but of a conceptual kind, provided that narrators' ages ensure their equal mastery of the linguistic system and that we distinguish the overall coherence of a narrative text from the linguistic devices locally applied to realize it.

In order to verify these hypotheses, an experiment was devised in which children had to continue a story, the beginning of which was presented to them.

## Method

### Subjects

38 children, 20 aged 9 and 18 aged 12, took part in the experiment. The choice of ages was determined by their being already competent storytellers.

### Material

26 short texts were devised, each of which could be the beginning of a story. Their very simple plots were of three different kinds as they were centered on different topics (see Appendix).

- There were 12 plots based on **Emotions**, of which 4 were experienced 2 by persons and 2 by animals, and 8 evoked 2 by persons, 2 by animals, 2 by plants, and 2 by objects.
- 6 plots were based on descriptions of **Objects**, of which 2 focused on object parts, 2 on object dimension, and 2 on object evaluation.
- 8 plots were based on the descriptions of **Social Roles**, of which 2 focused on psychological aspects, 4 on the actor's appearance, 1 on the actor's dimension, 1 on the actor's evaluation.

In both emotion- and social-role-based plots, the sentences could have a stative or an action verb. A plot was considered to be dynamic when there was at least one action verb, or static when it described a status or a situation. All object-based plots were of the static kind.

### Procedure

Children were presented with a 27-page booklet. On the first page, they had to write their name, age, and class, and to read the following instructions: 'On each of the following pages of the booklet, you will find a short text that can be the beginning of a story. How would you go on narrating it?'. At the top of each of the remaining 26 pages was written one of the 26 short plots in random order. The experiment took place in the children's classroom and was conducted by both one of the researchers and the children's teacher. The 12-year-olds had to perform the task in one session lasting about two hours and a half, while the 9-year-olds performed the task in two sessions, each of which lasted about two hours.

### Data analysis and results

#### Codes

In order to analyze the children's narratives, their stories were transcribed and coded by two independent researchers. Cases of disagreement (8%) were solved after brief discussion. The codes were devised to assess:

- 1 – whether the produced narrative was a logical continuation of the story or not;
- 2 – the number of thematic cores or 'idea units' (Chafe, 1990);
- 3 – the kind of continuation: of a static or a dynamic kind, depending on whether the beginning of the story was of a static or a dynamic kind as expressed by the verbs.
- 4 – the logical-semantic links between the plot and the produced continuation, i.e. whether it was an explanation (syntactic link: *because, as, etc.*), or a consequence (syntactic link: *then, thus, after that, for this reason etc.*), or a specification of the plot that sets an ending to the story (syntactic link: *of, with, from, etc.*), or a descriptive expansion of the plot referring to actors, objects, places already involved in the story (syntactic link: *relative clause: 'who', 'which', 'where', etc.*) or a new co-ordinate sentence introducing new content.
- 5 – the contextual frame of the story as represented by the location of the story, the time or period in which it occurs, the introduction of a new agent and actions performed.
- 6 – the kind of events produced. They could be, as Barsalou (1988) outlined, either synthetic events, i.e. repeated action sequences: e.g. '*every day she helped in the bar*', or specific events, i.e. events occurring in a certain place at a definite time: e.g. '*yesterday she went to her mother's*', or extended events, i.e. events lasting for a while: e.g. '*she remained deeply impressed*'.

#### Data analysis

Seven stories out of the 520 produced by 9-year-olds and two out of the 468 produced by 12-year-olds were not continuations of the given plot, and therefore were not subjected to further analysis.

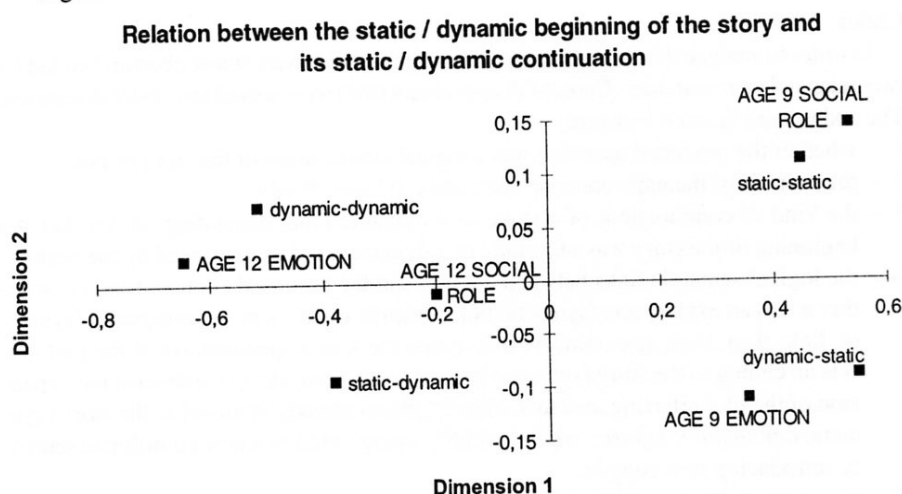
In the remaining stories, 513 produced by 9-year-olds and 466 produced by 12-year-olds, the frequency of each code was calculated.

As to the analysis of frequency of thematic cores, or 'idea units', there is a clear age increase of thematic cores with emotion-based stories greater than for object- and social-role-based stories. However, the proportion of the thematic cores elicited by the three kinds of stories does not change with age. Twelve-year-olds build stories richer in content than do 9-year-olds, having more general knowledge to influence their narratives. Moreover, emotion-related plots enhance the thematic deployment of the story at both ages.

As to the kind of story continuation, that is, whether or not children maintain the dynamic or static kind of beginning, there is an age increase of dynamic continuations in both static and dynamic beginnings and a parallel decrease of static continuations in both kinds of beginnings.

To illustrate this effect, a correspondence analysis was performed on two variables, the first being the emotion- and social-role-based stories at both the age levels, and the second being the kind of continuation (dynamic-dynamic, dynamic-static, static-dynamic and static-static). In this analysis, object-based stories were omitted, as their beginnings were of the static kind and this could compromise the reliability of the analysis.

Figure 1.

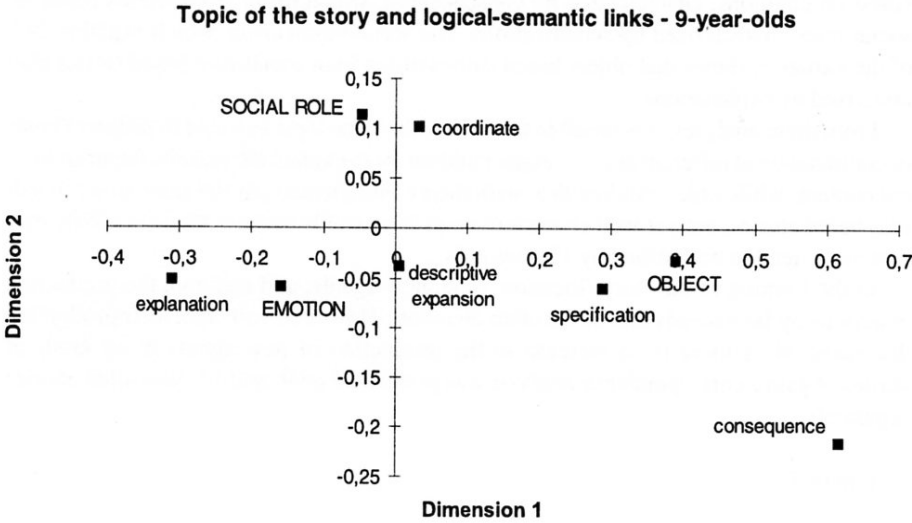


On the first dimension, which explains 96% of the variance, 9-year-olds' productions are characterized by static continuations after both static and dynamic beginnings in both emotion- and social-role-based plots, while those by 12-year-olds are characterized by dynamic-dynamic continuation of emotion based plots. This means that younger children are inclined to produce static stories, i.e. stories that describe the setting of the plot, while older children's stories tend to refer to actions and activities depending also on the kind of narrated content (mainly in emotion-based stories).

As to the logical-semantic links in the produced story, two correspondence analyses were performed to show the differences between the organization of the stories at the two age levels depending on story content.

The first analysis was performed on the 9-year-olds' stories, the variables being the story topic (emotion, object, social role) and the logical-semantic links that define the story structure (consequence, explanation, descriptive expansion, co-ordination, and specification).

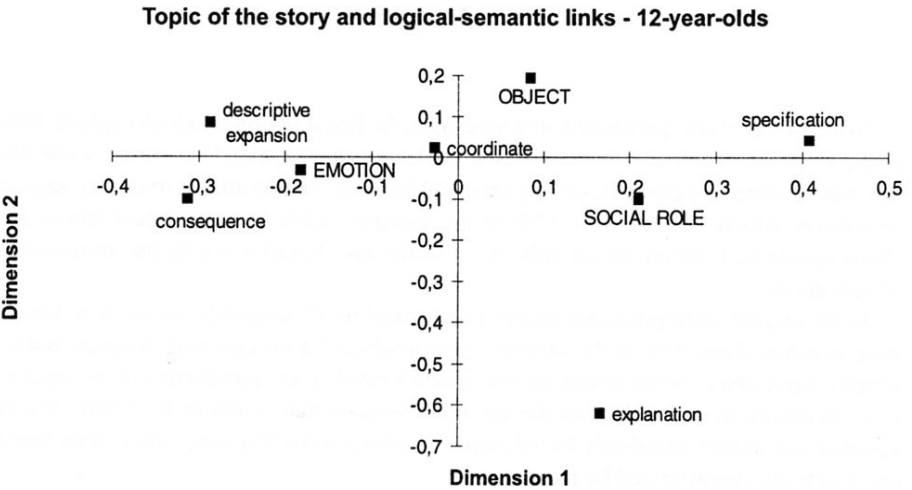
Figure 2.



The first dimension, which explains 89% of the total variance, shows that the stories based on emotions are characterized by explanations while those based on objects are characterized by specifications. Even if it explains only 11% of the variance, the second dimension shows that social role stories, characterized by co-ordination, differ from both emotion-based stories, characterized by explanations, and those based on objects characterized by specifications. It is interesting to note that while the stories based on objects tend to be concluded, stories based on emotions elicit explanations of what happened, while stories based on social roles help with the continuation of the story (see Fig. 1).

The second correspondence analysis was performed on the 12-year-olds' stories.

Figure 3.

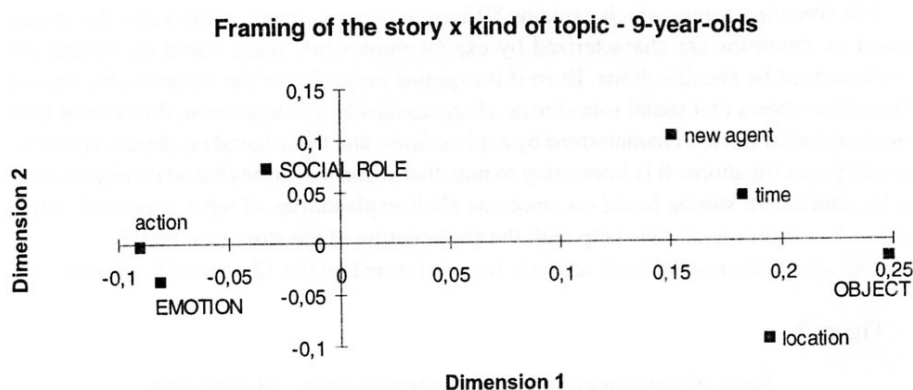


The first dimension, which explains 71% of the total variance, is represented by stories based on emotions, characterized by consequences, which differ from stories based on social roles characterized by specifications. The second dimension, which explains 29% of the variance, shows that object-based stories differ from social-role-based stories characterized by explanations.

From these analyses, it is possible to see how the same topic can lead to different kinds of continuation at different ages: younger children try to explain the reasons for an emotional content, while older children deal with their consequences. At the same time, social-role-based stories, not yet well characterized in 9-year-olds because they elicit only new sentences, tend to be finished by 12-year-olds.

In the framing of the story (location, time, new agents, and actions), the production of actions by far exceeds that of the other elements. However, with age, their production decreases while there is an increase in the production of new agents in all kinds of stories. Again a correspondence analysis was performed on 9- and 12-year-olds' stories separately.

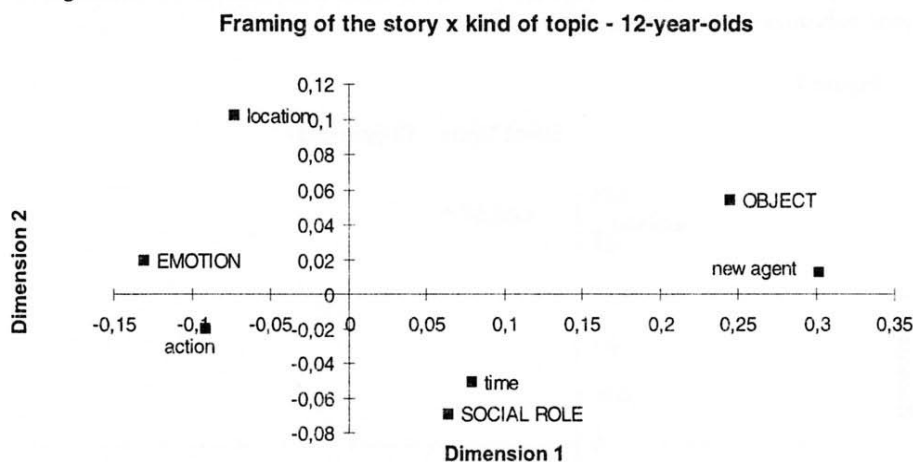
Figure 4.



In the first analysis, performed on 9-year-olds, the first dimension, which explains 88% of the variance, shows that emotion-based stories are characterized by actions while object-based stories are characterized by time and location. On the almost irrelevant second dimension, which explains only 12% of the variance, while emotion-based stories are characterized by location, social-role-based stories are characterized by the introduction of new agents.

In the second correspondence analysis performed on 12-year-olds, on the first dimension, which explains 91% of the variance, emotion-based stories are still characterized by actions, while object-based stories are now characterized by the introduction of new agents. It is interesting to notice that, on the second dimension that is almost irrelevant (9% of variance explained), social-role-based stories are characterized by time, while those based on objects are characterized by location.

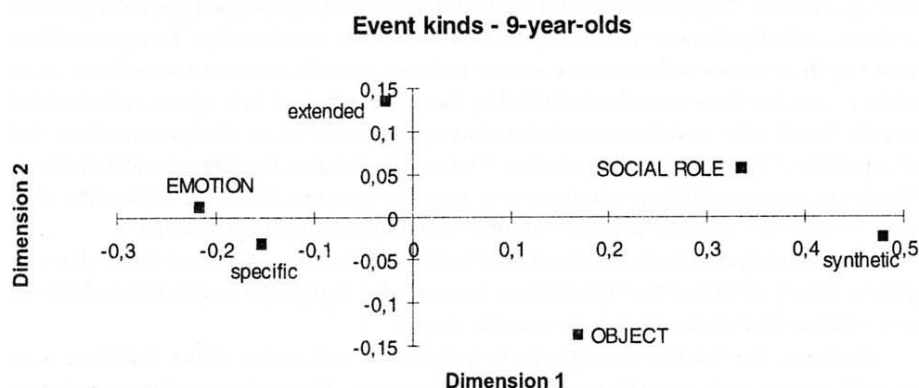
Figure 5.



These analyses confirm that, with age, narrative production shows an increase of agency on both the linguistic level of predicate choice (see the previous analysis on the kinds of continuation) and the cognitive level of the framing of the story setting.

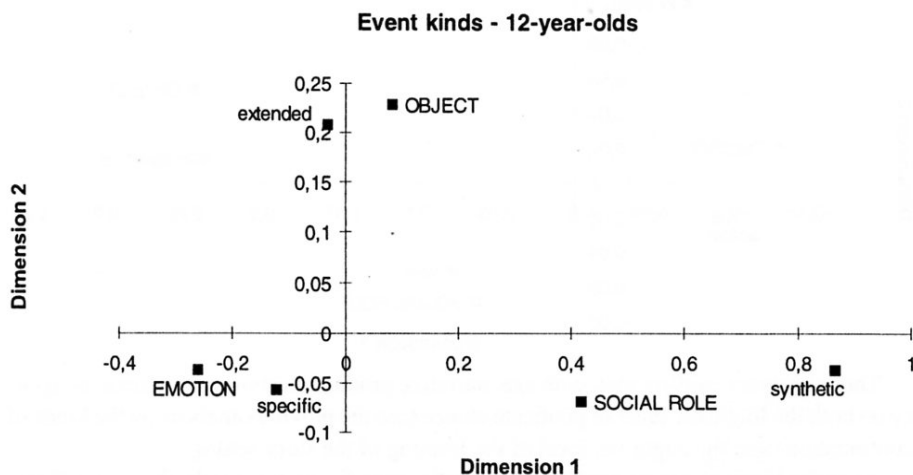
As to the kinds of events produced (synthetic, specific, or extended), their overall frequency increases with age. Moreover, at both age levels, the most frequently produced events are by far more of the specific kind and their production increases with age except in object-based stories where there is an increase in the production of extended events. On the contrary, the production of synthetic events decreases with age in all the stories regardless of kind. This result is hardly surprising, as synthetic events refer to routine behaviors which are not particularly interesting in themselves since they are 'scripts' (Shank & Abelson, 1977) which are not narrated but taken for granted in the addressee's mind. In the correspondence analysis performed on 9-year-olds, the first dimension, which explains almost all the variance (94%), shows that, while emotion-based stories elicit specific events, social-role-based stories elicit synthetic events.

Figure 6.



The pattern of the results emerging from the correspondence analysis performed on 12-year-olds does not show many differences.

Figure 7.



The first dimension, which explains 89% of the variance, highlights the difference between social-role-based stories characterized by synthetic events and emotion-based stories which are not characterized by any particular kind of event. The almost irrelevant second dimension, which explains only 11% of the variance, shows the difference between object-based stories, characterized by extended events, and specific events.

## Discussion

Briefly, as different topics have led to different ways of structuring the story and the same topic has led to different ways of shaping the story at different narrator ages, it is possible to conclude that both the hypotheses have been verified.

In fact, emotion-based stories are characterized by actions and specific events. In continuing the story, younger children engage in providing explanations for emotions and, as they grow older, they deal more with their consequences. Object-based stories are shorter and not as clearly characterized as emotion- or social-role-based stories. Younger children make up their stories with reference to time and place specifications of a static kind, while older children's stories are characterized by the introduction of new agents and extended events. Social-role-based stories elicit mainly synthetic events, i.e. routine situations, and this pattern of narration, already clear in 9-year-olds, remains the same in older children. However, younger children introduce new agents to continue the story, while older children's stories are quickly finished with time specifications and explanations.

These underlying structures found in children's stories are conceptual rather than linguistic as they pertain to the organization of knowledge. Language simply brings them out in a medium that allows them to be socially shared.

Moreover, the comparison between 9- and 12-year-old stories shows that there is an overall increase with age in thematic cores or 'idea units'. Stories become longer and more



elaborated. Children's stories are shaped more by actions and events than by static descriptions, and their content is developed by introducing new agents.

As linguistic competence at ages 9 and 12 is already fully developed and established, this difference in storytelling can be attributed only to greater general world knowledge in older children, who are able to establish a larger number of relations and more complex sets of relations between objects, people, and events, than can younger children. If it is the conceptual organization of knowledge that is exploited in narrative construction, then one can argue that the mind itself – conceived as the structure of knowledge organization – is embodied in culture, not only in narrative production. To Feldman's claim that 'narrative models are an important and ubiquitous part of the cognitive tool kit available to people in our culture, and indeed in any culture with narrative artifacts' (1994, p.271) we would reply that narrative models are not a 'part of the cognitive tool kit' but its mirror.

## References

- Barsalou, L. (1988). The contents and organization of autobiographic memory. In U. Neisser & E. Winograd (Eds.), *Remembering rediscovered. Ecological and traditional approach to the study of memory*. (pp. 193–243). Cambridge: Cambridge University Press.
- Bartlett, F.C. (1932). *Memory. An experimental and social study*. London: Cambridge University Press.
- Bamberg, M. (1987). *The acquisition of narratives*. Berlin: Mouton de Gruyter.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1990). *Aspects of meaning*. Cambridge, MA: Harvard University Press.
- Chafe, W. (1990). Some things that narratives tell us about the mind. In B.K. Britton, & A.D. Pellegrini (Eds.), *Narrative thought and narrative language* (pp. 79–98). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Feldman, C., Bruner, J., Kalmar, D. & Renderer, B. (1994). Plot, plight, and dramatism: interpretation at three ages. In W.F. Overton, & D.S. Palemo (Eds.), *The nature and ontogenesis of meaning* (pp. 255–277). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Mandler, J. (1984). *Stories, scripts, and scenes. Aspects of a schema theory*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- McCabe, A., & Peterson, C. (Eds.). (1991). *Developing narrative structure*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Nelson, K. (1986). *Event knowledge: Structure and function in development*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Nelson, K. (1989). *Narratives from the crib*. Cambridge, MA: Harvard University Press.
- Peterson, C., & McCabe, A., (Eds.). (1983). *Developmental psycholinguistics: Three ways of looking to a narrative*. New York: Plenum Press.
- Shank, R., & Abelson, R. (1977). *Scripts, plans, goals and understanding*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

## APPENDIX

### EMOTION-BASED PLOTS

#### EMOTIONS FELT BY PERSONS:

The boy shook with fear on hearing the sudden bag coming from the street.  
The girl run happily to her boyfriend whom she hadn't seen for a long time.

**EMOTIONS FELT BY ANIMALS:**

The puppy shook with fear on hearing the sudden bag coming from the street.

The puppy ran happily to his owner whom it hadn't seen for a long time.

**EMOTIONS EVOKED BY PERSONS:**

The girl was speechless with amazement when she heard what the boy she had just met was asking her.

The boy was frightened by his boss's threat.

**EMOTIONS EVOKED BY ANIMALS:**

The girl was speechless with wonder looking at the colors of the peacock's tail.

The boy was frightened by the ferocious beast that was right in front of him.

**EMOTIONS EVOKED BY OBJECTS:**

The girl was speechless with wonder at the sight of the ancient oak.

The boy was frightened by the voracious appetite of the carnivorous plant.

**OBJECT-BASED PLOTS****FOCUSED ON OBJECT PARTS:**

A little glittering diamond is set in a thin bar of white gold.

The house is divided by walls into many different wings which you reach by going from room to room. In almost every room there is a window through which the light comes in.

**FOCUSED ON OBJECT DIMENSIONS:**

The tiny ring looked as if it belonged to a fairy-tale princess.

Houses can differ a lot depending on their dimensions, but that one was so big and spacious that it seemed as if a family of giants lived there.

**FOCUSED ON OBJECT EVALUATION:**

It was a beautiful ring of great value and extremely elegant.

It's a beautiful big house and every room has a charming sense of the past.

**SOCIAL-ROLE-BASED PLOTS****FOCUSED ON PSYCHOLOGICAL ASPECTS:**

The young journalist began her interview with a tremble in her voice and her hands moving nervously.

The unknown lawyer walked into the lawcourt with a confident step, looking straight into the judge's eyes.

**FOCUSED ON THE ACTOR'S APPEARANCE:**

The young barman was wearing an old pair of jeans and a crumpled T-shirt saying: 'From the East Coast of America'.

The new secretary's legs were crossed under the desk while her hands were tidying her long hair that fell gently on her sun-tanned face.

The young barman was anything but friendly, he was rather terrifying.

The tall and well-built young barman appeared enormous behind the bar.

**FOCUSED ON THE ACTOR'S DIMENSION:**

The new secretary, who was of medium size, was also well proportioned.

**FOCUSED ON THE ACTOR'S EVALUATION:**

Even though she wasn't particularly elegant, the new secretary was certainly good-looking.