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Evaluative explanations in children's narratives of a video sequence without dialogue*

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ABSTRACT

Children's narratives consist of event clauses and contextualizing or 'evaluative' clauses. Bamberg & Damrad-Frye (1991) and Bamberg (1994) claimed that young children make limited use of evaluative clauses because they are less able to adopt a global perspective on the narrative. In an earlier study, Karmiloff-Smith (1985) demonstrated that the narratives of younger children have coherence only at a local level. However, Wellman & Bartsch (1988) showed that young children could produce evaluative-like causal explanations if given a specific prompt. The present study on 160 young children aged five, seven, nine and eleven years examined their production of evaluatives in narratives of a story presented as a video sequence with no spoken dialogue, to ensure that the children's production was not simply a re-working of verbal input. Results indicated that prompts greatly facilitated children's production of evaluatives and that they could adopt a global perspective on the story when formulating evaluatives.

These results indicate that limitations in the narratives of young children are more plausibly explained by contextual factors influencing language production and by constraints on working memory than by children's presumed lack of understanding of the structure of events or their inferences about the minds of the characters.

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INTRODUCTION

A basic requirement of any narrative, whether a personal non-fictional account of past events or a fictional 'story', is that it should be a 'chronological recapitulation of successive events' (Peterson & McCabe, 1990). Usually narratives comprise main line event clauses which simply describe what happened, plus contextualizing clauses which identify the setting and the characters, and frequently comment on why the events may have occurred.

These two components were labelled by Labov (1972) as reference (what happened) and evaluation (why the events may have occurred). A similar distinction was referred to by Bruner (1986) as the landscape of action and the landscape of consciousness respectively. Labov argued that evaluation could be included at any point in a narrative but tended to cluster around crises (or emotional 'high points'). Labov envisaged a prototypical narrative structure comprising: abstract, orientation, complicating action (high point), evaluation, resolution and conclusion. This structure, originally described for the narratives of adolescents and adults, has also been observed in children's narratives (e.g. Kernan, 1977; Umiker-Sebeok, 1979; Kemper, 1984).

Peterson & McCabe (1983) observed this classic Labovian pattern in the narratives of children aged between 3;6 and 9;6 but noted that it did not become dominant until the age of six. At four years, narratives were found to consist of temporally disorganized lists of actions. At five years they more clearly referred to temporally sequenced events terminating at the high point. Only at six years did narrative sequences continue to resolution and conclusion. In addition, the narratives of four and five-year-olds contained little evaluation (in Labov's sense) of the story events. At age six, discussion of why and how events took place was becoming slightly more frequent.

Since evaluation provides explanations of why events occurred, especially the actions of characters in the story, it typically involves reference to feelings, thoughts and intentions. A mentalistic belief-desire psychology (theory of mind) similar, though not identical to the adult model, is believed to be present in children as young as three (Wellman, 1990). However, when Kemper (1984) analysed 54 narratives from children aged five and six, a low incidence of the use of references to mental states was observed. Kemper also found that increased age was positively correlated with the number of mental state references used in narratives. This is consistent with results of an experiment by Flapan (1968) which studied the ability to formulate inferences about the feelings of story characters in young girls aged six, nine and 12 years and with a study by Wood (1978).

Evidence from research in this area suggests that very little spontaneous mention of the mental states and motives of others are observed in children's

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narratives obtained in an experimental setting up until the age of at least nine (Mandler & Johnson, 1977; Stein & Glenn, 1979; Peterson & McCabe, 1983; Kemper, 1984). However, in contrast to these findings, Miller & Sperry (1988) found some evidence of evaluation in the conversational narratives of children as young as two. Two-year-old children have been observed to comment upon mental states in their everyday conversations, albeit infrequently. Miller & Sperry (1988) reported that 10 percent of children's utterances at age two could be considered evaluative. Umiker-Sebeok (1979) report that this figure remains low between the ages of three and five and rises to 38 percent by the age of five. However, McNamee (1979) reported that whilst children younger than six have been recorded using evaluative devices, these are not always used appropriately. McNamee also claimed that children may acquire narrative skills as a result of the questions raised by their parents during story telling sessions.

A study by Poulsen , Kintsch, Kintsch & Premack (1979) specifically looked at the inclusion of cognitive and affective responses in the narratives of four- and six-year-old children. Their results led them to conclude that young children may not fully appreciate the necessity of including this type of information in their story comprehension tasks. Overall they found the number of cognitive and affective responses from the children in both age groups was low. However, they dismissed the idea that the children made little use of these response types because they did not have the ability to formulate these types of inferences. They cited the work of King (1971) and Marin, Greenberg & Mossler (1976) which demonstrated that under simple task conditions young children are capable of correctly deducing reactions to a familiar event.

The ability to form inferences based upon knowledge of peripheral events is an essential prerequisite for the production of all forms of discourse including story narratives. Mandler & Johnson (1977) argued that story 'schemas' are constructed from two sources, one source is frequent exposure to many types of story which leads to acquisition of knowledge about the typical sequencing of events in stories. The second source is knowledge and experience of the world, causal relations and likely outcomes. However, they propose that ultimately the story schema becomes an amalgam of these two sources which either condenses or ignores many aspects of experiential knowledge. Thus, during encoding, the schema acts as a general framework within which much more detailed comprehension can take place. A story schema could be described as a psychological expectation of how we expect a story to have a structure into which we slot the information from specific stories. Therefore, it could be argued that the two sources of schematic knowledge equate with the narrative/evaluative distinction proposed by Labov & Waletzky (1967). The narrative element of a story draws upon general event representations and knowledge of story structure whereas the

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evaluative element of a story requires the child to formulate an inference about specific (and unique) events. In younger children there will doubtless be an element of self-representation in this exercise but as the child matures the construction of an evaluative position will move from self- to other-focused. Labov & Waletzky (1967) initially posited their theory regarding the narrative/evaluative distinction when discussing first person narratives, which must by distinction, be predominantly self-referent. However, it would appear that this definition could equally be applied to third person narratives. Descriptions of the mental state of story characters or evaluations of the outcome of story events take the discourse outside its referential context and gives insight into how the narrator views the action within the story plot. It could therefore be argued that when children construct an evaluation of a story event or mental state, and convey this evaluation to an audience that this may represent not only what the children themselves believe but also what they perceive their audience needs to be told in order to understand the narrative.

A study by Bamberg & Damrad-Frye (1991) made a detailed examination of young children's ability to provide evaluative explanations in their narratives. It also investigated developmental changes in the function of evaluative devices in children's spontaneous narratives. Their results indicated that adults used about three times as many evaluative devices in their narratives as five-year-olds, and two and a half times as many as nine-year-olds. In addition, nine-year-olds and adults used significantly more 'frame of mind' references (where they referred to the feelings and mental states of a story character) than any other evaluative device. These findings led Bamberg & Damrad-Frye to suggest that references to mental states and particularly emotions have become the dominant form of evaluative device used by the age of nine.

This appears to have led Bamberg & Damrad-Frye (1991) to suggest that referring to a story character's mental state is a competence that takes several years to develop. They attributed the low level of evaluative use by the five-year-olds to an immaturity in their ability to integrate evaluations, particularly references to the 'frame of mind' of a story character, into event schemas and as an indicator of the child's developing 'theory of mind'. However, it can be seen from the evidence presented by Wellman (1990) and Wellman & Bartsch (1988) that five-year-olds are, in principle, capable of producing evaluative explanations. Five-year-olds clearly do have a 'theory of mind'. By the age of five the majority of children are successful in completing a standard false belief task, seen as the benchmark of a fully operational 'theory of mind' (Wimmer & Perner, 1983). It therefore seems likely that the low level of evaluation in young children's narratives may be accounted for by other cognitive or situational factors.

Poulsen *et al*. (1979) established that free-recall may be a poor indicator of

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children's narrative abilities and reported an improvement in narrative performance once a picture prompt or probe question was used. The first aim of the present study, therefore was to examine the use of evaluative explanations in children's spontaneous narratives in the absence of them having previously heard the story. The present study used a silent video sequence to elicit story narratives from the children. The silent video was judged to be the most effective medium as it provided a means of presenting a story to the children without using any verbal input, which may have primed their responses. A second aim was to investigate whether specifically prompting children, using questions similar to those employed by Wellman & Bartsch (1988) which focused attention upon the mental state of the story characters, would encourage the children to offer more evaluative explanations.

In the broader context of children's narrative skills, it is not only important to consider when evaluative explanations are used but also how. When producing a coherent narrative, which includes evaluation of the story character's thoughts and feelings, it is not sufficient simply to comment upon their mental state. It also becomes necessary to refer to the causal antecedents which may affect the character's mental state and the likely outcome (in terms of both events and subsequent behaviour)

Karmiloff-Smith (1985) has argued that, in order to produce a narrative which is coherent at both a local and global level, the child has to integrate knowledge of cohesion (the linguistic devices used to tie a span of sentences together) and coherence (the temporal/causal structure of narrative). However, she accepts that it is technically possible for a narrative to be coherent in content without having linguistic cohesion and *vice versa*. Karmiloff-Smith claims that the development of the ability to create discourse structure is a slow process. Early narratives produced by young children are essentially of a bottom-up, stimulus driven nature which do not necessarily contain any intra-linguistic linking of the individual sentences into a cohesive whole.

Bamberg & Damrad-Frye's (1991) findings appeared to support this position. They found that the narratives produced by very young children were very short, often lacking coherent structure or form. However, their study did establish that on the limited occasions when young children did use evaluative devices, they used them for the same purposes as adults: that is, to take the narrative outside its referential context and signal how sequential events are related. They argued that these devices provide the perspective from which the narrative is given its overall coherence. Their results suggested that when evaluating a story character's mental state, adults overrode the immediate facial expression of the story character and attributed an overall evaluation to the situation. In addition, they noted that most of the adults felt the need to mitigate the emotion experienced by the story character in order that they could continue with and conclude the story.

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Bamberg & Damrad-Frye claimed that the straightforward evaluation of emotion by the five-year-olds, with no attempt to explain the choice of emotion in the context of the whole story, could indicate that they are adopting a perspective which is tied to a more local outcome.

Bamberg (1994) uses the morphology of German tense markers to illustrate the differences between child and adult narratives. He argues that although the passive tense in German is used by both child and adult narrators to signal a particular evaluative perspective and aid the underlying coherence of the story (or an underlying 'theme'), adult narrators used these devices to far greater effect. Bamberg cited the way in which adults often referred to non-existent states or made extended deviations from the story line, adding greater detail and encouraging the listener to become more involved in the interpersonal relationships of the story characters, thus creating more comprehensible narratives.

Bamberg (1991) and Bamberg & Marchman (1991) claimed that actions, actors, scenes (spatial) and events (spatio-temporal) are viewed from an 'overarching' perspective and appear in an integrated relationship. Bamberg claims that younger children can and do take an evaluative stance in their narratives, but that they mainly confine themselves to evaluating from a local perspective. He claims that with age these local stances become more differentiated and integrated into a global narrative perspective. He does not say that younger children cannot (or do not) adopt a global evaluative perspective. Indeed in his recording of the narratives of children as young as three he has observed the use of referential strategies and aspectual markings which would suggest that they are capable of adopting such a stance. However, he does state that the overall impression gained from the narratives of younger children is that they tend to lack any coherent or clear evaluative stance, such as removing themselves from the narrative flow and offering further insight into why the events may have happened or the characters reacted as they did.

He also observed that younger children tend to confine themselves mainly to expressions which give insight into the wishes or desires of the story characters and that they use these expressions more frequently than older children. This would support the claims of Wellman (1990) who charted the development of the belief–desire–action triad in younger children and observed that expression of desires precedes the expression of belief by some years.

Interestingly, Bamberg also comments upon the use of words like 'suddenly', 'shocked' and 'surprised' as these words all appear to represent the adoption of a more global evaluative stance. He acknowledges that words like 'fright' or 'suddenly' did appear in the narratives of some three- and five-year olds. Indeed five-year-olds used these words a total of five times

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each. All of the narratives produced by the older children and adults exploited the 'suddenness' and 'fright' aspects of the story.

He claims that the use of these words suggests that the narrator considers that a story character may have been expecting a particular course of events or outcome but that locally occurring events altered the long term perspective or eventual outcome.

Bamberg argues that this particular narrative stance clearly illustrates the shift from 'local' to 'global' evaluation. Younger children focus on the here and now – revealing story characters' wishes and desires. As they grow older, children begin to look beyond the here and now and formulate an evaluative perspective which looks at larger sections of discourse and reveals the story character's motivation in terms of the context of the whole story.

However, the apparent inability of young children to adopt a more global evaluative perspective in their narratives may not be due to any inherent inadequacy in their reasoning system. A series of studies by Yuill & Oakhill (1991) suggested that some children are simply not so competent as others when asked to integrate information from stories or text in order to present a global picture. These children were perfectly capable of remembering the structure of the story. What appeared to be more difficult was retaining information long enough in working memory to enable them to form inferences and link information from different parts of a story in order to construct a globally coherent narrative.

The final aim of the present study is to examine whether, when given appropriate prompt questions, children will adopt a global evaluative perspective on a story. By giving prompt questions which are very specific, it may be possible to lighten the working memory load and facilitate the production of evaluative explanations, thus enabling the children to appreciate the importance of both prior and subsequent actions in formulating evaluations.

METHOD

Participants

One hundred and sixty children from four age groups were recruited from two local schools, a first school (age range 4–8) and a middle school (age range 8–12). The children represented a range of socio-economic groups and ability levels.

Group 1 consisted of 40 children from the reception classes, mean age 5;4 (range 4;10–5;9). Group 2 consisted of 40 children from year 2, mean age 7;2 (range 6;8–7;9). Group 3 consisted of 40 children from year 4, mean age 9;1 (range 8;9–9;9). Group 4 consisted of 40 children from year 6, mean age 11;2 (range 10;8–11;9). In each group, 20 children were male, 20 female.

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Materials

A three minute silent video recording and set of prompt questions were used to elicit narratives. The video was specifically made for the present study and featured children from a local theatre group who were selected on the basis of their ability to competently portray feelings and emotions. A summary of the story sequence is presented in the Appendix.

Procedure

All children were individually shown the video sequence once in order to familiarize them with the story. Children were randomly allocated to either a prompt or no prompt condition, 20 per age group per condition. They were shown the video a second time. This time, the video was stopped between each of the seven small 'scenes'.

In the no prompt condition, the children were asked to 'tell the story in their own words' after each stopping of the video sequence. The children were given no further prompting or assistance in the production of their narratives. If they failed to respond or gave an incomplete or incoherent answer this was not followed up in any way and the video recording was started again at the beginning of the next 'scene'

In the prompt condition the video sequence was also stopped at the end of each small 'scene'. After the video was stopped the children were asked the first in a series of prompt questions. In all but one scene (see scene 5 in the appendix) the prompt question initially drew attention to the story action. It was only after an account of the story action had been initiated that the child was asked about the story character's mental state

Testing took place in a separate room away from the main classroom area. All narratives were tape-recorded and subsequently transcribed.

Coding

All transcripts were initially divided into units. Each unit comprised a sentence, or part of a sentence, containing a subject and a predicate. The first step in the analysis was to categorize each of these 'clauses' as either a narrative clause or an evaluative clause. The two categories of clause were mutually exclusive.

NARRATIVE CLAUSES – Where the child tells the story, describing the surroundings and physical features of the story characters.

EVALUATIVE CLAUSES – Where the child removes him/herself from the describing action and focuses on the mental state of the story protagonists.

The evaluative clauses were then coded for the inclusion of lexical items from six categories. These six categories were based on a modified version of the coding system used by Bamberg & Damrad-Frye (1991). Bamberg &

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TABLE 1. *ANOVA for log frequencies of narrative and evaluative clauses by age and condition*

Source	d.f.	F
Between subjects		
Age	3	75·03*
Condition	1	21·47*
Age*condition	3	28·21*
Error	152	(0·25)
Within subjects		
Narrative vs. Evaluative	1	0·04
Narrative vs. Evaluative*Age	3	14·74*
Narrative vs. Evaluative*Condition	1	313·52*
Narrative vs. Evaluative*Age*Condition	3	12·86*
Error	152	(0·15)

Note: Values enclosed in parentheses represent mean square errors.
*$p < 0.05$.

Damrad-Frye counted any reference to the feelings or mental state of a story character as a 'frame of mind' reference. However, this would not have adequately represented an important distinction in the children's productions, especially in their responses to the prompt questions. The evaluation category 'frame of mind' was split into 'frame of mind (basic)' and 'frame of mind (with cause)'. References such as 'He's happy' or 'He's sad' without any justification or cause being offered for these feelings could simply reflect the child's ability to recognize the facial expression of the story character, rather than providing insight into the child's ability to evaluate why the story character might be happy or sad. Therefore, responses to the prompt question with a straightforward 'he's happy' were credited only as a 'frame of mind (basic)' reference. However, where the children spontaneously produced causal explanations for the story character's mental state, they were credited with having produced a 'frame of mind with cause' explanation

The sub-categories of evaluative devices were as follows:

(1) FRAME OF MIND (BASIC) – references to emotions such as happy, sad, cross, scared, etc. without causal justification.

(2) FRAME OF MIND (WITH CAUSE) – references to emotions such as happy, sad, cross, scared, and to mental states such as thinking or wanting, where the child acknowledges possible reasons for the feelings or mental states of a story character by means of a causal connective ('because', 'so', 'that's why').

(3) CAUSAL CONNECTIVES – where the child uses connectives ('because', 'so', 'that's why') to explain events or the story sequence rather than the mental state of the protagonists.

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(4) HEDGES – devices which suggest uncertainty on the part of the narrator such as 'probably', 'seems like' or 'might be'. Instances of 'don't know' were excluded.

(5) CHARACTER SPEECH – direct or indirect character speech - Bamberg and Damrad-Frye (1991) included character speech in their evaluative categories as they claimed when a narrator uses character speech, s/he is obliged to adopt a different epistemic stance and interpret how the story character might be thinking and feeling.

(6) NEGATIVE QUALIFIERS – such as 'no', 'not', 'un-', 'but'

A clause classified as an evaluative could contain more than one of these sub-categories. For example, it would be possible for an evaluative clause to contain a 'frame of mind' reference and a hedging device (e. g. 'He's probably happy').

Inter-observer agreement was assessed using two independent raters. For the distinction between narrative and evaluative clauses, kappa = 0·8. For the sub-categories of evaluative clauses, kappas ranged from 0·7 to 0·9.

Evaluation of the emotional high point

The transcripts of the children's utterances in the prompt condition were coded for their relevance to the specific question, 'How does Hannah feel now?' concerning the mental state of the story character in scene six in order to establish whether the children evaluated from a 'local' or 'global' perspective. The penultimate scene of the video was selected for detailed analysis as it represented an emotional high point just prior to resolution of the story. Since the events of this scene were essentially sad, but the eventual outcome was happy, evaluatives highlighting sadness were classified as 'local' whereas evaluatives highlighting happiness were classified as 'global'. Throughout the penultimate scene in the video sequence, the story character, Hannah, is seen standing looking sad with her eyes downcast. At no time during the scene does she look up or smile.

The following response categories were identified:

(1) Evaluation from a local perspective when the child's response was based upon facial expression and/or the immediately precipitating event. Two types of local perspective evaluation were identified which took the following forms; (i) 'She's sad because Henry made her sad'; (ii) 'She's sad because her doll is broken', both of which were commenting upon action which had taken place earlier in the story.

(2) Evaluation from a global perspective when the child's response was based upon eventual story outcome and ignored the immediate facial expression. Four types of global perspective evaluation were identified which took the following forms: (i) 'She's happy because her mother has come to fetch her'; (ii) 'She's happy because she wanted to go home '; (iii) 'She's

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happy because she doesn't have to fight/play anymore' and (iv) 'She's happy because she wants to get him into trouble'.

(3) Don't know/failure to reply.

RESULTS

Type of explanation

Use of 'evaluative' clauses To stabilize the variances, and to aid the interpretation of category frequencies in terms of ratios between categories, the frequency data were subjected to a log transformation. Where means are presented, these are back-transformed to the original scale of measurement by taking antilogs (i.e. they are geometric means of the original frequencies). Table 1 presents the ANOVA for log frequencies of narrative and evaluative clauses by age and condition. Table 2 presents the mean number of clauses produced by age group and condition.

TABLE 2. *Mean number of clauses* (S.D.) *produced by age group and condition n = 20 per age group per condition*

	5 years	7 years	9 years	11 years
No prompt condition				
Narrative	8·8 (1·6)	14·9 (1·9)	27·3 (1·5)	22·8 (1·4)
Evaluative	1·7 (2·9)	8·3 (1·5)	13·4 (1·5)	20·3 (1·4)
Prompt condition				
Narrative	7·9 (1·5)	10·6 (1·5)	11·1 (1·4)	11·4 (1·3)
Evaluative	17·0 (1·4)	20·3 (1·2)	25·7 (1·3)	27·0 (1·3)

In a three factor ANOVA, age × condition × category (narrative versus evaluatives), with repeated measures on the third factor, all main effects and interactions were highly significant, except for the main effect of category. (see Table 1). In the no prompt condition, there were fewer evaluative clauses than narrative clauses, and both categories became more frequent with age. This is much the same pattern as reported by Bamberg & Damrad-Frye (1991) and other investigators.

In the prompt condition, however, the frequency of evaluative clauses was higher than the frequency of narrative clauses, even in the five-year-olds, and evaluative clauses increased more steeply with age than narrative clauses. It is particularly noteworthy that the prompts substantially increased the number of evaluatives produced by the five-year-olds who, Bamberg & Damrad-Frye argued, might lack the competence to process stories in this

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TABLE 3 . *ANOVA of log frequencies of evaluative categories by age and condition*

Source	d.f.	F
Between subjects		
Age	3	56·04*
Condition	1	152·79*
Age*Condition	3	7·68*
Error	152	(0·5)
Within subjects		
Categories	5	420·46*
Categories*Age	15	11·63*
Categories*Condition	5	143·49*
Categories*Age*Condition	15	4·06*
Error	760	(0·29)

Note: Values enclosed in parentheses represent mean square errors.
*$p < 0.05$.

TABLE 4 . *Mean number of evaluative (S.D.) produced by age and condition (n = 20 per age group per condition)*

Category	5 years	7 years	9 years	11 years
No prompt condition				
Frame of mind (Basic)	1·0 (2·2)	3·8 (1·6)	4·5 (1·5)	6·2 (1·5)
Frame of mind (with cause)	1·8 (1·3)	0·7 (1·7)	0·9 (2·0)	1·1 (2·2)
Causal connectives	0·6 (1·5)	0·8 (2·1)	0·8 (1·9)	1·6 (2·4)
Hedges	0·5 (1·1)	0·5 (1·4)	0·7 (2·3)	0·8 (2·1)
Negative qualifiers	0·5 (1·0)	0·6 (1·4)	0·6 (1·4)	1·8 (1·2)
Character speech	0·7 (2·0)	2·1 (2·4)	6·9 (1·7)	8·5 (2·1)
Prompt condition				
Frame of mind (basic)	9·6 (1·3)	9·9 (1·2)	11·3 (1·3)	12·6 (1·2)
Frame of mind (with cause)	4·4 (1·7)	6·3 (1·3)	7·6 (1·5)	7·3 (1·2)
Causal connectives	1·7 (2·2)	1·7 (1·7)	2·3 (1·8)	2·2 (2·1)
Hedges	0·6 (1·5)	0·5 (1·2)	0·9 (2·4)	0·8 (2·2)
Negative qualifiers	0·5 (1·4)	0·5 (1·2)	0·6 (1·6)	0·6 (1·4)
Character speech	0·6 (1·7)	1·2 (2·5)	1·9 (2·3)	2·3 (2·7)

way. Table 3 shows the ANOVA of log frequencies of evaluative categories by age and condition. Table 4 shows the mean numbers of evaluatives produced by age and condition.

The six categories of evaluative clauses (frame of mind (basic), frame of mind (with cause), causal connectives, hedges, negative qualifiers and character speech) were examined using a similar age × condition × category ANOVA. As shown in Table 3, all main effects and interactions were highly significant.

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This was followed up by testing for linear age trends for each category, separately for each condition. In the no prompt condition, linear trends were significant for all categories except negative qualifiers. For the prompt condition, linear trends were significant for all categories except negative qualifiers and causal connectives. It would appear that whilst some evaluative categories were used relatively infrequently in either the prompt or no prompt conditions, the prompt questions led to an increase in the number of Frame of Mind (Basic) and Frame of Mind (with cause) explanations offered by all age-groups. However, the effect was far more marked in the younger children. The large drop in the number of character speech references in the prompt condition can be accounted for by the tendency of many of the older children in the no prompt condition to attempt to provide a script for the story characters.

Evaluative perspective

In order to explore whether the children were formulating their evaluations from a local or a global perspective, the narratives from the children in the prompt condition were coded for their responses to a question about the story character's 'frame of mind' in the penultimate scene of the video sequence. In this scene the story character appears unhappy and is comforted by her mother. The children were asked the question 'How does Hannah feel now?'

Table 5 gives the frequency of each response category by age. It is immediately evident from the frequencies presented in Table 5 that evaluations from a local perspective were extremely rare whereas evaluations from a global perspective were rather common.

As the number of children offering either a local perspective or 'don't know' reply was so small, it was not possible to carry out any reliable statistical analysis on these data.

A chi-square analysis on the global perspective data showed that there was no significant effect of age upon type of response given ($\chi^2 = 8{\cdot}4$, d.f. = 9, n.s.).

In addition, the spontaneous narratives of the children in the no prompt condition were examined to establish whether evaluation of the story character's frame of mind had taken place in the penultimate scene of the story, despite no specific question being asked. None of the five-year-olds, two of the seven year olds, three of the nine-year-olds and two of the 11-year-olds evaluated the story character's frame of mind as being 'happy'. Causal explanations were offered in all cases and were similar to those mentioned by the children in the prompt condition, namely that she was happy because 'her mum had come to take her home' or because 'she didn't have to play with the little boy any more'. Two nine-year-olds and one 11-year-old stated that the little girl was 'sad' or 'upset', focusing on the fact that the doll had

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TABLE 5. *Total frequency of each response type by age, local evaluative perspective, global evaluative perspective and 'don't know'. Prompt-condition* ($n = 80$, *20 per age group*)

Response type	5 yrs	7 yrs	9 yrs	11 yrs	Total
Local perspective: She's sad because …'					
(i) Henry made her sad	0	1	0	0	1
(ii) her doll is broken	1	0	0	0	1
Sub-total	1	1	0	0	2
Global perspective: She's happy because …'					
(i) her mother has come to fetch her	6	2	4	5	17
(ii) she wanted to go home	3	11	10	11	35
(iii) she doesn't have to fight anymore	4	6	6	5	21
(iv) she wants to get him into trouble	1	0	1	2	4
Don't know/no reply	5	0	0	0	5
Sub-total*	19	19	21	23	82

* Some children in the older age groups offered more than one option.

been broken. These responses appear to be adopting a more local perspective of the story character's frame of mind.

DISCUSSION

The present study had three aims which will be discussed in turn. The first aim was to investigate the use of evaluative devices by young children narrating a silent story sequence. The results indicate a clear age-related increase in the use of evaluative explanations within a narrative format. Research has shown that the narratives produced by five-year-olds contain little or no mention of mental states or evaluative explanations for events (Flapan, 1968; Wood, 1978; Kemper, 1984; Bamberg & Damrad-Frye, 1991). The data from the present study on spontaneous narratives offered by five-year-olds (in the no prompt condition) reveals a similar pattern of short narratives containing very little evaluation.

The second aim was to investigate the effect of giving a specific set of prompt questions on the children's production of evaluatives. This was to explore the possibility that the infrequent use of evaluative explanations in the narratives of five-year-olds is due to a lack of readiness or facility in formulating appropriate linguistic output rather than the lack of cognitive ability suggested by Bamberg & Damrad-Frye (1991). Wellman & Bartsch (1988) found that by asking young children specific questions about stories, they were able to encourage the children to produce fairly sophisticated inferences about an actor's actions in a story sequence. The present study eliminated the possibility of the younger children basing their evaluations

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upon what they had heard in a prior reading of a story by using a video sequence without any dialogue. In the prompt condition, the age-related differences in the evaluatives produced are far smaller than in the no prompt condition. This confirms that it is possible to lift the evaluative performance of five-year-olds significantly by giving them a prompt question. Further, these data demonstrate that, even without hearing a story, children are capable of providing evaluative explanations for story events. Willingness to offer this type of evaluation spontaneously appears to increase systematically with age, but it would seem that children possess the cognitive skill to formulate evaluative explanations long before they include these in their narratives spontaneously.

Bamberg & Damrad-Frye (1991) also found that the use of evaluatives based on the 'frame of mind' of the story characters increased markedly with age. In the no prompt condition, data from the present study fit this picture. However, the five-year-olds in the prompt condition produced almost as many 'frame of mind' references as the older children. Bamberg & Damrad-Frye (1991) also found extensive evidence of nine-year-olds linking 'frame of mind' evaluations with a causal justification for the mental state. Results from the present study support this finding in the no prompt condition, with spontaneous 'frame of mind (with cause)' evaluations increasing from the age of seven. In the prompt condition the data showed a small but significant age difference in the number of 'frame of mind' with cause explanations used. The nine-and 11-year-olds in the present study gave more 'frame of mind' with cause explanations than the five-or seven-year-olds. However, analysis of the transcripts demonstrated that the older children often offered multiple or alternative causes for a story character's 'frame of mind'. Nonetheless, it would appear that even the youngest children tested in the present study had the ability to offer coherent causal explanations for a story character's feelings.

In the prompt questions given to the children (see Appendix) it can be seen that only six questions specifically asked for an emotion-based inference. Results from the present study clearly demonstrate that the mean total for 'frame of mind' (basic) references was higher than six, even for the youngest children. This would strongly suggest that many of the references were generated independently of the specific prompt questions. A more interesting finding was the mean number of 'frame of mind (with cause)' explanations generated. References counted in this category were the spontaneously produced causal explanations for the story character's mental state. These appear to represent a far more complex cognitive process. It could be argued that use of these references suggests a potential underlying knowledge base quite distinct from the story structure schema. This knowledge base appears to have been activated by the initial prompt question requesting information about a story character's mental state and reflects the manner in which the

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children very quickly interpreted and then pre-empted the type of information they perceived the (adult) audience required from them.

It could be argued that including the responses from the initial prompt question regarding the mental state of the story character might represent something other than a demonstration of narrative performance. However, prompt questions directly asking about the mental state of the story character accounted for little under half of the prompt questions and the children were all initially asked to describe the story plot. One interesting finding upon analysis of the story transcripts was the tendency for the children in all age groups to pre-empt the mental state questions as the scenes progressed. Many children offered this information spontaneously as soon as they were prompted with the question requesting information about the story plot sometime after about the third scene.

The findings from the present study would appear to suggest that the children were in fact very quickly spontaneously providing the type of information the prompt questions were designed to probe.

This would support the findings of the study carried out by Harkins, Koch & Michel (1995) who suggested that deliberate inclusion of evaluation when telling a story to a child can be positively correlated with their own subsequent use of these devices. This type of 'scaffolding' appears to be beneficial in producing more coherent and evaluatively complex narratives.

The concept of 'scaffolding' was introduced by Wood, Bruner & Ross (1976) to describe the ways in which caregivers modify tasks given to young children, guide attention towards relevant aspects of a task, or intervene and assist. Thus the caregiver provides a structure within which the child can successfully complete a task and maintains the child at the edge of his or her zone of proximal development (Vygotsky, 1978).

McCabe & Peterson (1991) found that children develop personal narratives in anticipation of interaction with and feedback from their parents. Children who received most feedback and what McCabe & Peterson referred to as 'topic extension' where parents extend the topic under discussion with requests for clarifying statements, as opposed to simply listening to the child, are those who will produce significantly richer narratives over a period of time.

However, as pointed out by Peterson & McCabe (1990) it would appear that the precise level of parental support in the production of narrative is a finely balanced operation with those parents who interject with too many questions actually discouraging the development of fluent and cohesive narratives in their children. Too much emphasis on any one element would lead to the production of narratives which were stilted and not naturalistic. This was the justification used in the present study for using a mix of prompt questions that focused the children's attention equally on the story plot and the mental states of the story characters. We would argue that in the present

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study the prompt questions served as an effective tool for facilitating narrative production, whereby the children quickly learned what the audience required as the important elements of a narrative and began almost immediately to tailor their narrative production accordingly.

These results, therefore, appear to challenge Bamberg & Damrad-Frye's (1991) claim that 'frame of mind' references only emerge as the dominant form of evaluative device at age nine. This clearly depends on the context. A questioning listener will change the use of evaluations, both qualitatively and quantitatively. In addition, the success of the prompt questions in eliciting significantly more 'frame of mind' references from the five-year-olds also challenges the claim that the cognitive skills involved in formulating this type of evaluation do not develop until a later age.

With regard to the use of 'hedges' (a distancing device such as 'probably' or 'might be') Bamberg & Damrad-Frye (1991) identified age-related increases in the use of these devices. However, data from both the prompt and no prompt conditions of the present study found no such increase. This finding was somewhat surprising as the use of hedging devices (such as 'probably' or 'might be') requires the formulation of an inference about the possible causes of a story character's mental state and is often used to acknowledge the possibility of multiple or conflicting emotions. As such, it was expected that the older children would make more use of this device than they did.

The data from the present study show fairly extensive use of character speech references by the older children in the no prompt condition, with only the five-year-olds making little use of character speech in their narratives. The Bamberg & Damrad-Frye study did not record much use of this device by any age group. However, it must be noted that they used a story book format, whereas the present study used a silent video sequence where it was obvious to the children that the characters were communicating with each other. Many of the older children produced spontaneous narratives which were very much like a script. (This is perhaps not surprising given the familiarity of most children with the video as a story-telling genre.) This would also explain the drop in the number of character speech references recorded by the children in the prompt condition who, because of the specific questions asked, were not encouraged to provide a script for the story characters.

The third aim of the present study was to investigate whether five-year-olds are capable of adopting a global evaluative perspective on a narrative. Bamberg & Damrad-Frye (1991) carried out an analysis which focused on where and how 'frame of mind' evaluations were used in children's narratives. In their study, they found that 'frame of mind' references clustered around particular pictures. Labov & Waletzky (1967) also observed that evaluations tend to centre around the emotional 'high points' of a

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narrative. However, Bamberg & Damrad-Frye (1991) and Bamberg (1994) found that whilst children do offer limited evaluation at the emotional 'high points' of a story, they appear to restrict themselves to formulating their evaluation from a local perspective, confining themselves to the actual facial expression of the story character and the immediately preceding events. In contrast they found that adults offered a global evaluative perspective to the 'frames of mind' of the story characters, often over-riding the immediate facial expression and offering an evaluation based upon the situation or eventual story outcome. They believed this to be evidence of adults having a superior understanding of the overall plot structure of a story and claim that the shift from a local to a global evaluative perspective is a gradual process. A qualitative analysis of the transcripts obtained from the children in the no prompt condition supported this at a descriptive level, with the younger children failing to produce any 'frame of mind' evaluations for the story characters in the final two 'scenes' of the video sequence, despite the fact that this part of the video represents an emotional 'high point' just prior to the eventual resolution of the story.

However, a different pattern emerges in the narratives obtained from the children in the prompt condition. Children in this condition were specifically questioned about the mental state of the story character in the penultimate scene of the video sequence. Their responses were coded to establish whether they were adopting a global or a local evaluative perspective. The data showed that, despite the fact that the precipitating events should have made the story character 'sad' and that the facial expression of the character indicated 'sadness', the majority of children in all age-groups answered that she was 'happy'. When asked why they felt the story character was 'happy' all of these children offered a causal explanation which reflected the overall story outcome. This evidence suggests that the children are not only capable of formulating coherent evaluations of the mental states of story characters but that, in addition, they are also capable of providing 'global' causal explanations based upon eventual story outcome rather than being restricted to the immediate or immediately precipitating events.

It would appear that Bamberg & Damrad-Frye (1991) and Bamberg (1994) may have somewhat underestimated the children's competence at making evaluative inferences, and underestimated their access to global as opposed to local aspects of the story line. In the present study, the salience of a positive (happy) evaluated outcome seems to have overridden the local negative (sad) effect of a specific scene.

In conclusion, it appears that five-year-olds are capable of providing evaluative explanations which take account of both situation and story outcome once they are provided with a framework of prompt questions which may, by lightening working memory load and/or by cueing adult-expected patterns of story telling, enable the children to articulate inferences

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about a story character's mental state. It would appear that for a variety of reasons, young children's spontaneous narratives do not necessarily reflect their full cognitive abilities.

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APPENDIX

STORY PLOT DEPICTED IN VIDEO SEQUENCE AND PROMPT QUESTIONS ASKED

Scene one

Doorbell rings, little boy seen running to the door looking happy and excited. Door is opened to reveal a little girl and her mother. The girl comes inside and the girl's mother departs.

Questions

(1) Why is Henry running to the door?
(2) How does Henry feel?
(3) Why does Henry feel ...?
(4) Who has arrived at the door?

Scene Two

The children are next seen in the dining room. The boy's mother brings in a tray of cakes and drinks. She puts them on the table and the little girl chooses which cake she would like. She chooses a large chocolate eclair filled with fresh cream. The little boy looks upset.

Questions

(1) What is Henry's mother doing now?
(2) Which cake did Hannah choose?
(3) How did Henry feel about that?
(4) Why is he feeling ...?

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Scene Three

The scene then moves to the sitting room, where the children are seen playing happily with some toys. The little girl then looks up at the boy. She sees that he has laid some cars into a line and she pushes her doll at his cars. A fight then begins which culminates with the leg of the girl's doll being broken. The girl then pushes the boy who pushes her back just at the point when the boy's mother re-enters the room.

Questions

(1) What are the children doing now?
(2) Why did Hannah throw her doll at his cars?
(3) What did Henry think about this?
(4) Why did Henry feel ...?

Scene Four

The boy's mother is seen to look angry. The little girl is crying. The mother indicates that the boy should sit on the sofa. The girl is comforted and taken out of the room. As she leaves the room, the little girl puts her head back around the door and sticks her tongue out at the boy.

Questions

(1) What happens when the children start to fight?
(2) What does Henry's mother think when she comes into the room?
(3) Why is Henry's mother angry?
(4) Why did Hannah stick her tongue out at Henry?
(5) What is she thinking?

Scene Five

The little girl is then seen back in the dining room, crying. The doorbell rings. The girl stops crying, looks speculatively at the door, smiles, and then starts to cry again.

Questions

(1) How does Hannah feel now?
(2) Is she really upset?
(3) What does she think when she hears the doorbell ring?
(4) Who was ringing the doorbell?

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Scene Six

The little girl is seen in the kitchen, still crying. Her mother has returned for her and is standing with her arm around the girl's shoulder. The two adults talk and the broken doll is shown to the girl's mother. The girl and her mother leave.

Questions

(1) Who has come to the door?
(2) How does Hannah feel now?
(3) Why does Hannah feel ...?
(4) What does Hannah's mum think?

Scene Seven

The boy's mother then returns to the sitting room where the little boy is still sitting dejectedly on the sofa. The mother sits down by the boy. They talk. She gives him a hug and they leave the room hand in hand.

Questions

(1) What is Henry's mum doing now?
(2) How is Henry feeling?
(3) Why is Henry feeling ...?

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