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Donald S. Hayes

University of Maine - Main, donald.hayes@umit.maine.edu

Suzanne B. Kelly

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Sticking to Syntax: The Reflection of Story Grammar in Children's and Adults' Recall of Radio and Television Shows

Donald S. Hayes and Suzanne B. Kelly
University of Maine

Two studies were conducted to determine how well Mandler's (1983) story grammar, which was generated for oral or written discourse, predicts recall of televised stories. The studies also examined (a) whether the grammar could account for recall of both narrative and non-narrative stories, and (b) whether developmental differences exist in nodal recall for either television or radio. In Experiment 1, preschoolers viewed a televised story from "Sesame Street" that was non-narrative in nature. In Experiment 2, preschoolers and adults were administered a narrative via television or radio. In both studies, over two-thirds of subjects' retention reflected recall of nodal information, regardless of the medium of input. For all subjects, recall of setting, and outcome information surpassed that of reaction, ending, or beginning events.

It is clear that stories serve a major function in the socialization of young children. Perhaps recognition of this fact has led to the increased study of how individuals come to comprehend both aurally-presented and written narratives (see Kintsch, 1977; Mandler & Johnson, 1977). Unfortunately, little attention has been paid to how televised stories are comprehended, even though young children are estimated to spend between 3 and 4 hours each day in the presence of TV. Hence, the present research was directed toward learning more about media differences and similarities in story apprehension by young children and adults.

Recently, several models of story comprehension have been proposed (Mandler & Johnson, 1977; Stein & Glenn, 1979), all of which are relatively similar in their underlying assumptions. Each has been based on recall of aural or written narratives. Because it offers an

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elaboration of age differences in story organization, as well as the implication that story comprehension may vary as a function of input modality, the model proposed by Mandler and Johnson (1977) provided the theoretical basis for this research.

Basically, Mandler (1983) assumes that most stories reflect a type of grammar, made of an underlying base structure and a set of rewrite rules. The base structure is composed of six nodes that represent setting, beginning, reaction, attempt, outcome, and ending information. It is further assumed that these nodes exist as a generalized schema that individuals use for encoding, organizing, and retrieving information. This schema not only specifies the types of information that normally occur in a story, but also the relation of one part to another (e.g., attempts precede outcomes).

At least for written or aural narratives, empirical support exists for certain of Mandler's assumptions. For example, investigators have found that children have more difficulty recalling stories when the events deviate from the order specified by the grammar (Mandler, 1978; Mandler & DeForest, 1979; Stein & Glenn, 1979). Moreover, grade-school children tend to reorder story events into the standard grammatical order during recall, even when the events are presented in a scrambled fashion (Buss, Yussen, Mathews, Miller, & Rembold, 1983). Both of these findings provide strong evidence that children use such schemata for processing and comprehending stories.

A characteristic pattern of recall across nodes also exists for the retention of story events, with the pattern generally consistent for individuals between 6 years old and adulthood. Basically, children and adults recall information from the setting, beginning, and outcome nodes better than from the ending or reaction nodes (Mandler, 1978; Mandler & Johnson, 1977). This similarity is qualified by a possible developmental increase in recall of attempts, such that young children sometimes mention these items infrequently (cf. Mandler & Johnson, 1977), whereas adults routinely include attempts in their stories résumés. A consistent age effect, however, has been reported for the amount of information recalled at each node, with adults remembering more than young children (Mandler, 1978; Mandler & Johnson, 1977).

Although empirical support for Mandler's (1983) model has been reported with aural narratives, no one has examined whether children or adults rely on a story grammar for their processing of television shows or whether media differences exist in the amount of information recalled at various nodes. In regard to the first issue, several researchers have either assumed that children use such a grammar to process televised stories (Beagles-Roos & Gat, 1983, p. 133) or have

noted that the possible use of such schemata may have important implications for understanding how television is processed (Meringoff, 1980, p. 242). Likewise, Wright et al. (1984) have suggested that even kindergarten children process televised stories schematically, because their comprehension is higher for story programs than for magazine shows. No one, however, has reported a story grammar analysis for children's recall of a television show, making it unclear whether such grammars have generality outside of purely aural or written presentations.

In regard to the second issue, whereas the superficial structure of televised stories does not seem to differ markedly from that of the purely verbal discourses previously examined, large media differences exist in the techniques used to convey story events (e.g., the availability of audio-visual versus purely aural attributes). Hence, an examination of media differences in the amount and type of nodal information recalled seems warranted. In fact, Mandler and Johnson (1977) suggest (pp. 141-142) that examination of structural differences in the presentation of narratives (e.g., television cartoons vs. aural presentations) may be important for understanding children's processing of stories. Moreover, Mandler and Johnson (1977) question whether their grammar is adequate to account for story processing in which the central theme is conveyed via dialogue among the major characters rather than by means of an omniscient narrator. It is important to note that the former non-narrative approach is used frequently in televised stories.

When considered in contrast to a purely aural input, several other findings suggest that televising a story might evoke differences in children's nodal recall. First, it has been reported that retention of visual information by young children exceeds that of auditory information for televised presentations (Hayes & Birnbaum, 1980; Stone-man & Brody, 1983). Moreover, television seems to predispose especially high attention to and retention of visual action sequences (Calvert, Huston, Watkins, & Wright, 1982; Meringoff, 1980), whereas aural presentations seem to enhance retention of figurative language and dialogue, as well as inferential reasoning (Beagles-Roos & Gat, 1983; Meringoff, 1980). Because setting, attempt, and outcome nodes often reflect information that is highly amenable to visual representation (e.g., actions, consequences, and the background in which they occur), it might be expected that a televised presentation would enhance young children's retention of information at these nodes. On the other hand, because reactions and endings are often dependent on verbal discourse for presentation, a radio version might augment recall of information at these nodes.

Because of these unresolved issues, and because relatively little is known about how children integrate information from television, two studies were conducted. Both were designed to examine the applicability of Mandler's story syntax in accounting for subjects' retention of televised stories.

EXPERIMENT 1

The first experiment served as a precursor for a more comprehensive examination of story apprehension. Its major purpose was to assess whether the bulk of children's recall of a television show could be classified with Mandler and Johnson's (1977) story grammar, even though the major theme was conveyed primarily by dialogue (i.e., a non-narrative). It was expected that retention of televised information at the setting, beginning, and outcome nodes would exceed recall of reaction or ending information.

Method

Subjects. Fourteen preschool children (mean CA = 57.3 months) served as subjects. All were enrolled in either the Child Study Center at the University of Maine or Mister MacGregor's Garden in Lincoln, Maine. All children came from middle-class backgrounds.

Materials. A 6-minute segment from "Sesame Street," entitled "The Great Cookie Thief," was selected to assess children's story recall. The segment consists of a multi-episode, multi-protagonist story prepared by Children's Television Workshop. Each of the six nodes comprising Mandler and Johnson's (1977) story grammar were exemplified within the segment. The plot involves a series of saloon encounters between a group of cowboys and the Great Cookie Thief (played by the Cookie Monster). After recognizing the Cookie Thief from a Wanted Poster on the wall, a fearful piano player tries to alert the sheriff and his associates to the thief's presence. Remaining skeptical, one of the members of the group is sent to check out the suspect by comparing his eyes, fur, and finally his hat with characteristics on the poster. As the piano player's state of agitation grows with each comparison, the sheriff eventually becomes convinced and confronts the thief. The Cookie Monster then tricks the sheriff and his associates by drawing a mustache on the wanted poster, effecting a discrepancy in appearance between the poster and himself. Convinced they have made a mistake, the accusers apologize. Saying he has not been offended, the Cookie Monster bows courteously and removes his hat, causing a huge stash of cookies to fall out. The segment ends with the sheriff and his crew realizing the thief's true identity and chasing him from the saloon.

The Appendix contains a breakdown of the story into its constituent parts, with the number of major elements specified at each node. As described by Mandler and Johnson (1978), setting information introduced the protagonists and specified the context in which the story transpired. Beginning events described initiating conditions and the general problem confronting the protagonist(s). Reactions reflected the protagonist's internal responses to the initiating conditions or problems. Attempts comprised actions by the protagonist to solve the problem or alter the initiating conditions. Outcomes reflected the results of the protagonist's actions. Endings comprised the resolution of the problem and overall conclusion of the story.

Testing procedure. Children were taken individually to a research area and shown the "Sesame Street" segment. Each subject was told that a show would be presented and they should watch and listen closely because they would be asked to provide a synopsis when it was over. The program was shown while the experimenter sat adjacent to but slightly behind the child, watching the screen attentively. Immediately following its presentation, subjects were asked, "What was that show about? Tell me what happened on the show?" The subjects then related the contents of the program in their own words. When recall seemed to lag, additional probes were given (e.g., "Can you remember anything else about the show?") in order to solicit the fullest possible descriptions.

Data coding. The basic parsing system developed by Mandler and Johnson (1977) was used to code the correct recall shown by each subject. The major difference in story coding between this experiment and previous studies was a function of the non-narrative nature of the present story. Nodal items were determined on the basis of event occurrence, regardless of availability of verbal description. Although the present story was more complicated (i.e., with multi-episodes and protagonists) than most stories used in earlier research of this type (cf. Mandler, 1978; Stein & Glenn, 1979), few adjustments in the coding procedure were required. The story was quite well-structured, according to Mandler's standards, with the actions of each protagonist generally proceeding in a sequential rather than interleaved fashion. Whereas items in several nodes were conveyed via visual features only, there were few nodes that needed to be inferred without a visual and/or auditory representation being supplied. Using Mandler's grammar as a basis, two naive raters independently coded the verbatim recall protocols shown by subjects. One rater coded the responses for one-half of the children tested. Intercoder reliability, as indexed by Cohen's (1960) Kappa, was .80, .80, .90, .82, .85, and .92 for the setting, beginning, reaction, attempt, outcome, and ending nodes, respectively.

Results and Discussion

As was expected, the majority (83%) of recall shown by children could be classified with Mandler's story schemata. The mean number of story elements correctly recalled was 9.76, with most children providing a fairly accurate résumé of the major events. It is important to note that the number of elements available for recall varied across the six nodes. Thus, to evaluate the possible use of the grammar by children, the proportion of actual elements within each node (see Appendix) that were recalled was calculated for each subject. The mean proportions were .27 ($SD = .13$), .11 ($SD = .05$), .01 ($SD = .04$), .39 ($SD = .13$), .35 ($SD = .12$), and .14 ($SD = .04$) for setting, beginning, reaction, attempt, outcome, and ending information, respectively. A one-way analysis of variance (based on each subject's proportion scores) revealed a main effect for story node, $F(5, 65) = 6.57, p < .01$. Scheffé tests ($p = .05$) confirmed that a greater proportion of setting, attempt, and outcome information was recalled than was beginning, reaction or ending information.

That 83% of children's total correct recall could be coded with the nodes developed by Mandler and Johnson (1977) is in accord with the notion that their grammar is used by children for processing televised stories. At the very least, it demonstrates that the grammar can adequately describe children's retention of televised stories that are non-narrative in nature. Most importantly, the pattern of recall of televised information across story nodes was generally consistent with prior results in the aural narrative literature (see Mandler, 1978).

One finding that was not in accord with our predictions was the relatively low recall of beginning information. This apparent difference may stem from the story content itself, as well as from the program's non-narrative style. An examination of stories previously used (Mandler, 1978; Mandler & Johnson, 1977) indicates that beginning nodes usually included specific, action-oriented incidents. In addition, a beginning is generally set off by a narrative shift (e.g., "Now one day . . .") indicating an episodic transition (Mandler, 1978, p. 14). The beginning information in the "Cookie Thief," however, is primarily conversational. Hence, it is possible that the non-narrative nature of the show did not provide the emphasis required to indicate an episodic shift. Despite this difference, it seems that the pattern of TV recall remains remarkably similar to that reported earlier with aural narratives.

EXPERIMENT 2

Although the findings of the first experiment are in accord with the notion that children rely on a particular story grammar when pro-

cessing televised as well as aural stories, support for the conclusion that television enhances recall of attempts is limited by the use of different stories across the two lines of research. Thus, one purpose for conducting a second study was to contrast the retention of nodal information when the same story was conveyed by television versus radio. Second, the use of new materials also served to evaluate the general applicability of the grammar to television, because comparison of television subjects' nodal recall for two different types of dramatic shows was possible across the two experiments. A third rationale was to assess whether adults' reliance on and use of a story grammar might also vary according to the medium of input.

Method

Subjects. Serving as subjects were 44 preschool children (mean CA = 50.6 months) enrolled in the Child Study Center at the University of Maine, and 44 adults (mean CA = 19.8 years) enrolled in introductory psychology courses at the University of Maine. None of the children who participated in the first study were retested as part of Experiment 2.

Materials. Because the "Sesame Street" segment used in Experiment 1 was a non-narrative, it was necessary to find a new TV show that, without alteration of the sound track, could be readily understood in the absence of video features. Based on these considerations, a commercially marketed (Learning Corporation of America) cartoon version of Rudyard Kipling's "How the Whale Got His Throat" was selected for use. Because the sound track provided a verbatim reproduction of Kipling's original text, it was possible to record the televised sound track on a cassette and present a sensible story as an aural narrative. The story was written originally for children and is marketed for an audience between the preschool and grade-school years. As with "The Great Cookie Thief," each of the six nodes comprising Mandler and Johnson's (1977) story grammar were exemplified within the story.

The basic plot involves a whale who eats nearly all the fish in the sea, but is still hungry. He then seeks advice from a Stute Fish, who advises him to try eating man. Consequently, he eats a man who is stranded on a raft. In an attempt to gain release and be taken home, the man jumps up and down in the whale's stomach. The man's jumping causes the whale discomfort, resulting in both indigestion and the hiccups. As the whale swims toward the man's home, the man builds a large grate out of his raft, which he pulls into the whale's throat upon debarking. Hence, from that day on, the whale can eat only small fish which fit through the grate in his throat. The Appendix

contains a résumé of the story, with the number of major elements specified for each node.

Testing procedure. Preschool children and adults were administered the story individually. One-half of the subjects at each age viewed and listened to the story via a televised presentation. Immediately following the show, subjects were directed to, "Tell me what that story was about." They then provided a verbal résumé from memory, using their own words. When their recall seemed to lag, two more general probes were given (e.g., "What else can you remember about the story? Can you remember anything else about the story?") to solicit the fullest descriptions possible. The remaining subjects at each age level were tested in the same manner, except that they heard a purely aural narrative presented via radio. All subjects were given as much time as they needed for recall.

Data coding. The basic parsing system developed by Mandler and Johnson (1977), described for Experiment 1, was used to code subjects' story recall. Because of the increased complexity of this story, several small modifications were made in the coding system. Occasionally, there were pieces of information presented in the story that conveyed the major gist of a node (e.g., "The whale ate the starfish and the garfish and the crab and the dab and the plaice and the daice . . ."). When a subject included this type of elaborated information, only one item was scored as correct (i.e., S3 in Appendix) for that node. Due to the overlap of episodes and dual-protagonists, there were times when a response represented a story item that occurred in the substories of both protagonists. When this occurred, the point of view from which the subject related the event determined how it was categorized (e.g., "the whale had the hiccoughs" was coded as an event in the whale's episode, whereas "the man gave the whale the hiccoughs" was included in the man's substory). Two naive raters independently coded subjects' entire, verbatim protocols. One rater coded only the protocols of one-half of the subjects within each condition. Intercoder reliabilities, as assessed by Cohen's (1960) Kappa, were .81, .79, .86, .77, .82 and .80 for setting, beginning, reaction, attempt, outcome, and ending nodes, respectively.

Results and Discussion

Once again, the bulk of subjects' retention could be coded using Mandler's story grammar. Of the correct recall shown by preschoolers, 86% reflected nodal information; for adults' correct recall, 64% reflected nodal events, with the remaining 36% of their summations composed primarily of elaborative information (excluding inferences) available in the story. This age difference in retention of elaborative

information suggests that preschoolers may be more dependent on the grammar for recall than adults. In Table 1 is the proportion of information recalled at each story node according to condition and age, and evidence that performance was very similar in the TV and radio condition.

As in Experiment 1, the actual number of major story elements varied across the six nodes. Thus, the proportion of nodal events recalled by each child was examined in a three-factor analysis of variance. Condition (TV vs. radio) and age (preschoolers vs. adults) were entered as between-subjects factors, whereas story node (setting, beginning, reaction, attempt, outcome, and ending) represented a within-subjects variable. The analysis revealed significant main effects for story node, $F(5, 420) = 97.28, p < .01$, and age, $F(1, 84) = 678.18, p < .01$, as well as for the interaction of these two factors, $F(5, 420) = 10.36, p < .01$. Overall, adults recalled significantly more information than did preschoolers. As in Experiment 1, more setting, attempt, and outcome information was recalled than beginning, reaction, or ending information. These trends were qualified, however, by the reliable interaction of age with story node. Scheffé tests ($p = .05$) revealed this interaction was due to adults recalling proportionally more events from the attempt than reaction node, whereas preschoolers did not. Contrary to our expectations, no significant effects were associated with the condition factor, $F(1, 84) = 1.61, p < .20$.

GENERAL DISCUSSION

The major finding of this investigation is that, for both televised and aurally presented stories, the recall of children and adults was remarkably consistent in its reflection of story grammar. In all cases, the majority of recall could be classified within Mandler and Johnson's (1977) story schemata, with the pattern generally the same: Both children and adults showed higher retention of setting and outcome information than they did of reaction, ending, or beginning information. To our knowledge, this evidence is the first to suggest that both young children and adults use the same type of grammar to mediate recall of television stories as they do for oral or written ones. This finding extends recent work by Wright et al. (1984) by specifying in more detail the nature of the schemata that children may be using for TV processing.

Age differences existed primarily in the amount of information recalled at each node. One exception to this effect, however, was that adults recalled proportionally more attempts than reactions, whereas a similar trend with preschoolers was not significant. This type of age effect has been reported previously with aural narratives

TABLE 1. Mean Proportion of Nodal Information Recalled According to Age and Condition

<i>Age</i>	<i>Condition</i>		<i>Story Node</i>					<i>Ending</i>
			<i>Setting</i>	<i>Beginning</i>	<i>Reaction</i>	<i>Attempt</i>	<i>Outcome</i>	
Preschool	Television	<i>M</i>	.41	.09	.03	.22	.21	.09
		<i>SD</i>	.14	.13	.08	.16	.11	.17
	Radio	<i>M</i>	.35	.12	.01	.13	.17	.02
		<i>SD</i>	.17	.15	.05	.12	.19	.06
Adult	Television	<i>M</i>	.86	.49	.40	.83	.61	.56
		<i>SD</i>	.13	.16	.14	.21	.13	.16
	Radio	<i>M</i>	.92	.56	.38	.81	.57	.50
		<i>SD</i>	.13	.16	.15	.22	.12	.24

(Mandler & Johnson, 1977) and it may reflect developmental changes in story integration, with young children showing a greater tendency to fragment the narrative into discrete and unrelated events (cf. Collins, 1978). The interrelation of a character with an action is often necessary for attempts to be recalled. Thus, differential interassociation of characters with events may partially account for this age effect.

These studies advance understanding of the circumstances under which story schemata are used in several additional ways. First, with few exceptions, the typical pattern of nodal recall occurred with stories that are far more complicated and reflective of those that children usually experience than the ones that have often been used for research of this type, that is, very short narratives with only one protagonist and a limited number of sequential (rather than interdependent or concurrent) episodes (see Buss et al., 1983; Mandler, 1978; Nezworski, Stein, & Trabasso, 1982). The present stories, however, included multiple protagonists and numerous episodes of extended duration. In addition, the pattern of nodal recall occurred for both narrative and non-narrative stories, which has not been reported previously.

One unanticipated finding was the relatively low retention of beginning information. That beginning information was recalled less well, overall, than in previous reports may be a function of the simplicity of story structure prevalent in discourses used before. In fact, Mandler suggests that clarity and simplicity of story structure are necessary for an individual to apply the story grammar. It is quite possible that the considerable amount of elaborative information and interdependency of substories in "How the Whale Got His Throat," as well as the lack of articulated narrative shifts and frequent inclusion of beginnings with no action in both stories, contributed to the relatively low amount of recall at this node.

Regardless of these differences, the data demonstrate that Mandler's story grammar predicts recall for both radio and television presentations. As is reflected in Table 1, the proportion of correct recall across story nodes is strikingly similar for the audio-visual and audio-alone presentations. This finding may reflect the grammar's power as an organizing mechanism for story comprehension, regardless of the input medium. Alternately, it may be that each of the two media examined here normally use a set of formal features which afford more emphasis to setting and outcome information than to events at the other nodes, even though the particular features may vary from medium to medium. In fact, the basic story nodes outlined by Mandler may have a unique and relatively consistent relation with the media-specific, formal features of television (e.g., camera zooms, pans, and

dissolves) and radio (e.g., sound effects, background music), with the grammar supplying the underlying syntactic structure and the features serving as "punctuation marks," including when and how much attention should be given to a particular aspect of a story. If this relation is clearly and consistently operating, comprehension and recall of a story may be enhanced. However, if a shift from one node to another is not emphasized by perceptually salient features, or if these features are used inconsistently, then comprehension may be adversely affected.

Obviously, further investigation is necessary to determine the relation between the grammatical structure of a story, including its possible media-specific punctuation, and children's attention to and recall of story events. Their nodal recall here certainly suggests a sensitivity to the usual format of stories. It is necessary now to verify the general consistency of the relation between story schemata and the formal features of the medium, as well as to determine whether children's recall is a function of their expectations about how a story usually unfolds, the way a specific story is structured, or a combination of the two. It may be that young children are better grammarians for specific media than would be expected, given the availability of well-structured stories.

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APPENDIX

Story Nodes

The Great Cookie Thief

Node Type ^a and Number	Story Summary
S1	A sheriff and his associates
S2	are conferring in a saloon
S3	about a wanted poster of the Great Cookie Thief.
B4	A piano player then notices the Cookie Monster standing next to the poster
B5	and informs the sheriff and his men.
R6	The men become fearful and confused, wanting to determine if the Cookie Monster is the Cookie Thief.
A7	The piano player asks the others how he should verify the true identity of the Cookie Monster.
O8	He is told, "Check out one thing at a time,"
O9	and the first thing to compare should be the eyes of the poster with those of the Cookie Monster.
A10	The piano player approaches the poster and the Cookie Monster, checking out their eyes.
O11	He verifies that the eyes are the same
O12	and tells his companions that they are identical.

Appendix—The Great Cookie Thief—continued

<i>Node Type^a and Number</i>	<i>Story Summary</i>
O13	The sheriff states that this is not enough to make an arrest.
O14	The piano player is told to check out his fur.
A15	He checks out the fur and
O16	concludes that it looks the same.
O17	He tells his friends
O18	but they say that is still not enough for an arrest.
O19	He is told to check out the hats.
A20	He compares the hats and
O21	verifies that they look the same.
O22	He tells his friends and
O23	they decide to confront the Cookie Monster.
S24	The Cookie Monster moves away from the poster and whistles innocently.
B25	The sheriff and his men approach the Cookie Monster,
R26	confident that they have resolved the identity question.
A27	The sheriff accuses the Cookie Monster of being the Great Cookie Thief.
O28	The Cookie Monster denies it,
R29	looking afraid and nervous.
A30	The Cookie Monster then tries to trick the men by claiming that he and the Cookie Thief do not have the same mustache.
O31	The men state their skepticism,
A32	so the Cookie Monster has them look away,
A33	while he surreptitiously draws a mustache on the poster.
O34	The men next acknowledge the mustache on the poster
O35	and verify that the Cookie Thief does not have one.
B36	They apologize to the Cookie Monster,
R37	which causes him to smile and look happy.
A38	He tips his hat in acceptance of their apology
O39	and a huge stash of cookies falls out.

Appendix—The Great Cookie Thief—continued

<i>Node Type^a and Number</i>	<i>Story Summary</i>
E40	The men chase the Cookie Monster from the saloon,
E41	yelling that they are now certain he is the Great Cookie Thief.

How the Whale Got His Throat

<i>Node Type^a and Number</i>	<i>Story Summary^b</i>
S1	Once upon a time, there was a whale
S2	who lived in the sea
S3	and ate lots of fish.
B4	Finally, no fish remained
B5	except for one who was his friend.
R6	Eventually, the whale became hungry,
A7	so he ate a sailor,
O8	which initially satisfied him.
B9	The man remained alive and moving in the stomach
R10	causing the whale to hiccough with indigestion.
A11	The whale asked the man to come out
O12	but with no result.
A13	The whale then swam the man to shore
O14	and let the sailor out at home.
S15	There once was a sailor
S16	floating on a raft,
S17	wearing bright red suspenders.
B18	The sailor was shipwrecked
B19	and then was suddenly swallowed by the whale.
R20	The sailor was angry at the whale,
R21	as well as homesick.
A22	Thus, he jumped up and down in the stomach

Appendix—How the Whale Got His Throat—continued

<i>Node Type^a and Number</i>	<i>Story Summary</i>
O23	until he was finally taken home.
A24	The sailor also built a grate out of his raft and suspenders,
O24	which he lodged in the whale's throat upon debarking.
E26	This is how the whale got such a large throat
E27	and why he only eats small fish
E28	and no longer eats man.

Note. Story nodes for "The Great Cookie Thief," summarized from "The Great Cookie Thief," a segment from "Sesame Street," produced by The Children's Television Workshop, PBT-TV, New York, 1979. Copyright by Children's Television Workshop, 1979. Adapted by permission. Story node for "How the Whale Got His Throat," a story by Rudyard Kipling, from a cartoon version, produced by Learning Corporation of America, 1970. Copyright by Learning Corporation of America, 1970. Used by permission.

^aS = Setting, B = Beginning, R = Reaction, A = Attempt, O = Outcome, E = Ending.

^bThe narrative for Experiment 2 comprised a dual protagonist story. Summary statements 1-14 reflect the whale as protagonist, whereas 15-28 reflect the sailor as protagonist.