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# Facilitation of Recall Through Organization of Theatrical Material

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## Abstract

This study explored how professional actors and students differ when asked to segment the same text. Previous research (Noice, 1992, Noice & Noice, in press) has indicated that actors, when preparing a role, divide the script into units called beats. To investigate the role this organizational device plays during learning, actors and students were presented with the same scene from a theatrical script. They were given explicit procedural instructions on how to segment the scene and label their divisions. Actors created far more divisions, resulting in smaller beats and significantly more of those beats described goal-directed activities from the viewpoint of the assigned character. Students, on the other hand, seemed to stand outside the situation and describe the scene as a static state of affairs. The actors' approach to segmenting a script appeared to consist of inferring the causal relations between the events in the play, resulting in better recall of the temporal order. Previous research (Noice, 1993) showed that students who studied a theatrical script as if it were a school assignment retained as much material

verbatim as actors. However, in the present study in which both groups were given this script division task, actors' verbatim retention was significantly higher than that of students'.

## Introduction

For the past few years, we have been investigating how professional actors learn lengthy roles verbatim. Although some type of rote strategy is generally considered necessary for the verbatim retention of text, we found that most actors denied learning by rote but appeared to have a unique form of gist strategy that produced word-for-word results (Noice, 1992). In another study we showed that 1) actors' preliminary investigation of text involves explaining the text by recognizing the plans of the assigned characters; 2) that actors generate significantly more elaborations than students when studying the same script, and 3) that these elaborations are made primarily from the perspective of the assigned characters (Noice, 1991). Furthermore, we found that actors (using

their form of gist strategy) recalled significantly more material verbatim than actors using a rote strategy (Noice, in press).

In the course of this series of experiments, actors made many references to an organizational device they called "finding the beats." In essence, this consists of regarding a script as a description of the attempts by the assigned character to reach successive subgoals in order to attain a higher-order goal. While this device of "finding the beats" has been frequently referred to in the theatrical literature (e.g., Grote), its psychological validity has never been verified nor its benefits investigated. Therefore, this experiment asked three main questions: 1) Can the criteria actors use for segmenting a script be specified? 2) Are the divisions inherent in the text itself? 3) Is the benefit of this system of organization simply a deeper understanding of the role or does division into beats make a specific contribution to the increased verbatim retention we have shown previously.

## Method

### Subjects & Materials

Twelve professional actors and 12 Augustana undergraduate students studied the same scene from *The Second Man* by S. N. Behrman used in our previous research (Noice, 1991).

### Procedure

Each subject was tested individually. Actors were told to mark up the script as if they were preparing to read the scene at an audition and, if they usually divided the script into sections, to label each one using whatever terms they would ordinarily

employ. Since the students would not have any experience with this process, they were told to imagine they were going to try out for a role in a college play and to divide the script into whatever they would consider logical segments in order to properly interpret the scene when they read it at the try-out. After a 20-minute study period, a surprise free recall test was administered.

## Results

### Beat Divisions

Actors created far more divisions, resulting in smaller beats (Actors:  $M = 8.42$ , consisting of 5.07 idea units each; Students:  $M = 4.67$ , consisting of 9.21 idea units each).

### Beat Descriptions

The major question was whether there were any qualitative differences in the subjects' descriptions of the segments. To give a better picture of this process, a portion of the script as segmented by an actor and by a student is presented in Table 1. As can be seen, the actor divided this section into two beats whereas the student considered it as one. The titles of the beats showed goal-directed activity on the part of the actor but not on the part of the student. Both beats of the actor were from the perspective of the assigned character while the student's beat was from the perspective of both characters simultaneously.

In analyzing all subjects' protocols, two main differences appeared between actors and students. Actors regarded each beat as an attempt by the character to achieve a particular goal and divided the script accordingly. Students made divisions at

**Table 1.** Excerpt of the script as segmented by a male actor and a male student.

Actor's Description	SCRIPT	Student's Description
Share Suspicion	KENDALL: (After a moment) I think you can trust Storey. AUSTIN: Can I? KENDALL: He told me over the phone - you and Miss Grey are engaged. AUSTIN: There's something funny about it. KENDALL: There's something funny about most things.	They started wondering about several things
	AUSTIN: (Warming to her) Mrs. Frayne - - - KENDALL: Call me Kendall. AUSTIN: Thank you. I wonder - wonder if Storey tells me everything. I mean - about Monica and himself. KENDALL: Perhaps he doesn't know everything. AUSTIN: You mean - perhaps he's in love with her and doesn't know it?	
Out with it -Trust		

what they considered changes in the story line, as signified by changes in topics of conversation. Students did not generally adopt their assigned character's viewpoint when describing beats but referred to both characters simultaneously (e.g., they did this; they said that) or alternated between one character's perspective and another.

Two independent raters scored all 131 beat descriptions along two dimensions: presence or absence of goal-directed activity and use of perspective (see Table 2). Two findings were most important for our purposes. First, the actors had generated significantly more descriptions containing goal-directed activities than students,  $t(22) = 6.12, p < .01$ . Second, more of the actors' descriptions reflected the perspective of the assigned character,  $t(22) = 8.61, p < .01$ , compared to students. On the other hand, significantly more students' descriptions reflected the viewpoint of both characters,  $t(22) = 5.04, p < .01$  compared to actors.

**Table 2.** Comparison of beat descriptions generated by actors and students in terms of presence of goal-directed activity and use of perspective.

	Actors	Students
Presence of Goal-Directed Activity	78% **	22%
Perspective	Same	83% **
	Different	4%
	Both	50% **
	N/S	8%

\*\*p<.01 \*p<.05 Key: N/S = Not specified

(Interrater reliability amounted to 94% for goal-directed activities and 97% for use of perspective.) In general, while actors described goal-directed activities from the viewpoint of the assigned character (e.g., "to bring her in"), students appeared to stand outside the situation and describe a static state of affairs (e.g., "They talk about love.")

### Location of Beat Divisions

Another goal of this study was to determine where actors and students segmented the text. Results showed that indeed some breaks in the narrative were so salient that both actors and students made beat divisions at that point but actors showed a greater tendency than students to impose their own organization on the text. Overall, 62% of the actors' beat divisions were made at places where only one other (or no other) actor made them, indicating an individualistic approach. Conversely, only 34.5% of the students' beats exhibited this pattern. Thus, the majority of the time, actors divided the script in

Table 3. Proportion of idea units (of the assigned character) correctly recalled by actors and students.

		True Verbatim	Acceptable Verbatim*
Actors	Males	.16	.24
	Females	.14	.26
	Mean	.15	.25
Students	Males	.04	.06
	Females	.05	.11
	Mean	.05	.09

\*Note: Acceptable verbatim includes True verbatim

places where other actors did not, whereas students divided the script in places where other students did.

### Recall Data

Table 3 presents a summary of the proportion of idea units correctly recalled. Two measures were used: true verbatim and acceptable verbatim (allowing one-word changes). Actors recalled significantly more lines than students,  $F(1,20) = 28.33$ ,  $MSe = .006$ ,  $p < .01$ . Even when the most stringent measure of recall was used which allowed not even the slightest deviation, actors still outperformed students substantially,  $F(1,20) = 28.95$ ,  $MSe = .002$ ,  $p < .01$ .

### Temporal Order

To measure adherence to temporal order, we used the seriation measure developed by Asch and Ebenholz (1962). The average index for actors was .88 which

was significantly higher than the .65 of the students,  $t(22) = 3.26$ ,  $p < .01$ , indicating a greater tendency on the part of actors to recall the lines of the script in the original order.

### Summary and Discussion

This study set out to determine whether professional actors segment a script as a preliminary step in their learning of a role and, if they do, to ascertain the criteria they use and the benefits they derive from such segmentation. The results showed that all actors in the study did indeed divide the script into a series of units, each one devoted to a separate intention of the assigned character. Furthermore, after segmenting the text, actors recalled three times as much material verbatim as the students. Yet, previous research (Noice, in press) has shown that actors are not better memorizers *per se* than students; when both use strategies they consider appropriate to the task at hand, their recall is equal. Why does this script division enhance memory in actors but not in students? Three reasons may be suggested. 1) The actors' approach called for examining each line to find out what goal the actor was pursuing when uttering those exact words. The extra attention to detail required by this type of analysis would appear to facilitate retention. 2) This approach appeared to result in the construction of a causal chain. Causal chaining has been shown to improve comprehension and aid recall (e.g., Trabasso & van den Broek, 1985; van den Broek, 1990). 3) The actors but not the students tended to identify with their assigned characters. Even when the students' descriptions were made from the assigned character's viewpoint, they nevertheless did not explore the character's ongoing mental activity but

simply summarized what was being discussed in that section. Thus, the difference in use and specificity of perspective may be another factor in the actor's increased retention.

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