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Journal of Educational Psychology, 1977, 69, pp. 309-315.

Technical Report No. 14

TAKING DIFFERENT PERSPECTIVES ON A STORY

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University of Illinois at Urbana-Champaign
November 1976

Center for the Study of Reading

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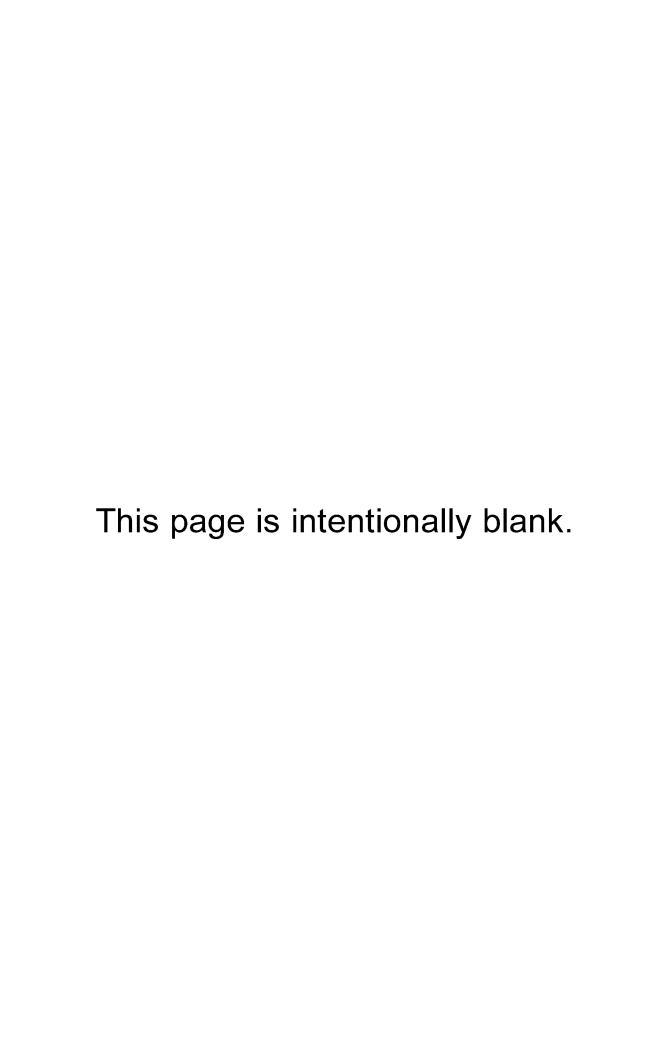
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The research reported herein was supported in part by the National Institute of Education under Contract No. MS-NIE-C-400-76-0116 and Grant No. HEW-NIE-G-74-0007.

^{*}Designation as a Center pending approval.



Abstract

College undergraduates read stories from one of two directed perspectives or no directed perspective. An idea's significance in terms of a given perspective determined whether the idea would be learned and, independently, whether it could be recalled a week later. These results were interpreted to mean that alternative high-level schemata can provide frameworks for assimilating a text, perhaps by providing "slots" for different types of information. Later the schema from which an instantiated memorial representation of a passage was constructed may furnish the retrieval plan for recovery of detailed information.

Taking Different Perspectives on a Story

People are more likely to learn and remember the important than the unimportant elements of a prose passage. That this is so was known by the turn of the century (Binet & Henri, 1894; Thieman & Brewer, in press) and there have been increasingly rigorous demonstrations since that time (Newman, 1939; Gomulicki, 1956; Johnson, 1970; Meyer & McConkie, 1973; Bower, in press). An exciting development of the last few years has been the explication of the notion of importance in terms of theories of text structure. Our concern is that in their less cautious moments theorists have permitted the inference that the structural importance of an element in a passage is an invariant that follows from the logic of a propositional analysis (Kintsch, 1974, p. 137) or a text grammar (Meyer, 1975, p. 184; Frederikson, 1975, pp. 160-162). This is an inference that ought to be resisted.

More significant than the structure in some sense contained in a text, is the structure the reader imposes on the text. These structures will be called schemata following Piaget (1936), Bartlett (1932), and others (Kant, 1781; Anderson, 1976; Rumelhart & Ortony, 1976). Later in the paper schema theory will be discussed in more detail. For the moment, it is enough to say that imposing a schema on a text simply means viewing the text from a certain perspective.

A text will be incomprehensible if a reader is unable to discover a schema that subsumes it. Bransford and Johnson (1973) gave passages like the following:

The procedure is actually quite simple. First you arrange things into different groups. Of course, one pile may be sufficient depending on how much there is to do. If you have to go somewhere else due to lack of facilities that is the next step, otherwise you are pretty well set. It is important not to overdo things. That is, it is better to do too few things at once than too many. In the short run this may not seem important but complications can easily arise. A mistake can be expensive as well. At first the whole procedure will seem complicated. Soon, however, it will become just another facet of life. It is difficult to foresee any end to the necessity for this task in the immediate future, but then one never can tell. After the procedure is completed one arranges the materials into different groups again. Then they can be put into their appropriate places. Eventually they will be used once more and the whole cycle will then have to be repeated. However, that is part of life.

Readers who saw the title, "Washing Clothes," learned and recalled substantially more than control subjects who read this passage without a title. Clearly the title helped the reader bring to bear a schema that was otherwise difficult to discover.

Some passages can be assimilated readily to distinctly different high level schemata. The interpretation of such passages is sensitive to context (Schallert, 1976) and, in the absence of strong contextual cues, sensitive to variations in the knowledge and belief that readers bring to text. Anderson, Reynolds, Schallert, and Goetz (1976) wrote the following passage:

Every Saturday night, four good friends get together. When Jerry, Mike, and Pat arrived, Karen was sitting in her living room writing some notes. She quickly gathered the cards and stood up to greet her friends at the door. They followed her into the living room but as usual they couldn't agree on exactly what to play. Jerry eventually took a stand and set things up. Finally, they began to play. Karen's recorder filled the room with soft and pleasant music. Early in the evening, Mike noticed Pat's hand and the many diamonds. As the night progressed the tempo of play increased. Finally, a lull in the activities occurred. Taking advantage of this, Jerry pondered the arrangement in front of him. Mike interrupted Jerry's reverie and said, "Let's hear the score." They listened carefully and commented on their performance. When the comments were all heard, exhausted but happy, Karen's friends went home.

Most people interpret this passage in terms of an evening of cards but it can be interpreted as about a rehearsal of a woodwind ensemble. Another passage is usually seen as about a convict planning his escape from prison, however it is possible to see it in terms of a wrestler hoping to break the hold of an opponent. These passages were read by a group of physical education students and a group of music students. Scores on a multiple-choice test and theme-revealing disambiguations and intrusions in free recall indicated that the interpretation given to passages bore the expected strong relationship to the subject's background. Many more music than physical education students gave a music interpretation to the passage set forth above, while the other passage was much more frequently given a wrestling interpretation by physical education than music students.

An excellent nonexperimental illustration of the effects of highlevel schemata can be found in reactions to the Kennedy-Nixon debates during the 1960 election campaign. Katz and Feldman (1962) reviewed thirty-one independent studies sampling the responses of the estimated 70,000,000 Americans who viewed the debates. They found that individuals with a party affiliation or with a specific voting intention declared their own candidate the winner much more often than they chose the opposition candidate. In one study those who named one or the other candidate as having won the final debate were asked, "In what ways would you say that (Kennedy, Nixon) was better?" and the answers were cross tabulated with voting intention. Three categories of reasons characterize the loyal partisans as compared with those who conceded defeat. The reasons they gave boiled down to saying that the winner was better, first of all, because they agreed with his views; second, because he was better informed; and third, because he was more sincere, honest, truthful, etc. Statements with which a respondent disagreed were most often attributed to the opposition candidate -- even when actually made by the respondent's own candidate -- while statements with which the respondent agreed were much more accurately attributed to the candidate who made them. In spontaneous recall of candidates' statements viewers tended to recall those of their own candidate's statements with which they personally agreed and statements of the opposition candidate with which they disagreed.

When it is said that a message "has" a structure, this is a shorthand expression meaning that there is a consensus in a linguistic community about the schema that normally will subsume the message. The members of such a community play the same language game (Wittgenstein, 1968). When they are playing the same language game, the schemata by which a reader discerns a certain structure in a text complement the ones the author used to structure that text.

Mature readers are able to approach text with different purposes or perspectives that can override conventions a linguistic community ordinarily uses to structure a text. In other words, our hypothesis is that structure is not an invariant property of text, but rather that it depends upon perspective. If, for whatever reason, people take divergent perspectives on a text—that is, impose different high—level schemata—the relative significance of text elements will change. Elements that are important on one view may be unimportant on another. By definition an important element "fits in" to an organized structure of information and is thereby, we hypothesize, more learnable. Furthermore, readers are more likely to carefully pay attention to and deeply encode important elements. Hence, it is predicted that the likelihood a text element will be learned will vary according to perspective.

Perspective may have further independent effects on the accessibility of text elements that have been learned. A high-level schema can serve as a retrieval plan, so to speak outlining the questions one should ask of oneself. The schema is bound to provide implicit cues for important elements, less likely to do so for unimportant ones. Therefore, among those idea units that are stored, the important units will be more accessible and, it is predicted as a consequence, better recalled.

The purpose of the present study was to provide an initial test of these ideas. The procedures were straightforward. Passages were written containing ideas and information whose importance seemed to depend upon perspective. Experiment 1 was a test of the notion that perspective can determine the significance of information and ideas. Subjects instructed to take different perspectives rated the importance of the idea units in passages. If idea unit importance were to depend upon inherent structural features of the text, the same idea units would be important and the same idea units unimportant regardless of perspective. Hence, a high correlation would be expected among ratings of idea unit importance obtained under the different perspectives. On the other hand, were significance to depend upon perspective, as we contend, the correlation among ratings across perspectives would be quite low. Experiment 2 used the ratings of idea unit importance obtained in Experiment 1 to investigate the effects of perspective on what specifically will be learned and, given learning, what specifically will be remembered. If learnability and memorability depend upon importance and importance depends upon perspective, it follows that the rating of importance from the perspective the subject was directed to take will make a better predictor of performance than ratings based on other possible but nonoperative perspectives.

Experiment 1

Method

<u>Subjects</u>. Sixty-three college students from an undergraduate educational psychology course at the University of Illinois served as judges in partial fulfillment of a course requirement.

Materials. Two passages that could be viewed in terms of two or more high level schemata were constructed. The first story ostensibly was about two boys playing hookey from school, as follows:

The two boys ran until they came to the driveway. "See, I told you today was good for skipping school," said Mark. "Mom is never home on Thursday," he added. Tall hedges hid the house from the road so the pair strolled across the finely landscaped yard. "I never knew your place was so big," said Pete. "Yeah, but it's nicer now than it used to be since Dad had the new stone siding put on and added the fireplace."

There were front and back doors and a side door which led to the garage which was empty except for three parked 10-speed bikes. They went in the side door, Mark explaining that it was always open in case his younger sisters got home earlier than their mother.

Pete wanted to see the house so Mark started with the living room. It, like the rest of the downstairs, was newly painted.

Mark turned on the stereo, the noise of which worried Pete.

"Don't worry, the nearest house is a quarter of a mile away,"

Mark shouted. Pete felt more comfortable observing that no houses could be seen in any direction beyond the huge yard.

The dining room, with all the china, silver and cut glass, was no place to play so the boys moved into the kitchen where they made sandwiches. Mark said they wouldn't go to the basement because it had been damp and musty ever since the new plumbing had been installed.

"This is where my Dad keeps his famous paintings and his coin collection," Mark said as they peered into the den. Mark bragged that he could get spending money whenever he needed it since he'd discovered that his Dad kept a lot in the desk drawer.

There were three upstairs bedrooms. Mark showed Pete his mother's closet which was filled with furs and the locked box which held her jewels. His sisters' room was uninteresting except for the color TV which Mark carried to his room. Mark bragged that the bathroom in the hall was his since one had been added to his sisters' room for their use. The big highlight in his room, though, was a leak in the ceiling where the old roof had finally rotted.

This story, hereafter called the House passage, was written to contain approximately equal numbers of features of interest to a burglar and to a prospective homebuyer. For instance, a burglar would be interested in the color TV set but uninterested in the leaking roof. Presumably the reverse would be true of a real estate prospect.

The second narrative, termed the Island story, describes two gulls frolicking over a remote island. It contained approximately the same number of descriptions of exotic flora and features relating to its capacity to sustain a shipwrecked sailor.

Four raters parsed the House story into 72 idea units and the Island story into 56 units. The raters were in agreement on 87% and 76% of the idea units, respectively. Disagreements were resolved in conference.

Procedure. Each subject received an envelope containing two booklets, one for each story. Each booklet consisted of an instruction page,
the story with its idea units indicated by parentheses and a number
above each, and pages upon which the idea units could be rated. The
instruction page told subjects that "Whenever someone reads a story or
paragraph, some ideas stick out as being more important to the story

than others." Subjects then read instructions specific to the condition assigned to them. There were three conditions for each story. For the House passage, one third of the subjects were instructed to read the story from the perspective of a potential home buyer, one third were to read it from the perspective of a burglar, and one third, a control group, were given no special perspective. For the Island story, one third of the subjects were told to take the perspective of an eccentric florist who desired an out-of-the-way place to raise flowers, one third were to read the story from the perspective of a shipwrecked person eager to stay alive and get home, and one third were controls. Subjects were told to read through the story once before rating the idea units. Subjects rated each idea unit on a five point scale in which "5" meant essential and "1" meant "easily eliminated due to its unimportance." Subjects were exhorted to keep their role in mind as they rated the idea units. The rating task was subject paced. When all subjects had finished the first story they were instructed to go on to the second story, reading the new instructions and proceeding as before. Order of the stories was counterbalanced. To obtain a measure of the reliability of the ratings, subjects were randomly divided into two groups within each of the six story/perspective conditions. The correlations between the mean ratings of idea unit importance of the two groups within each condition ranged from .91 to .98.

Results

The idea units were rank ordered in each perspective on the basis of mean rating. Kendall's Tau rank order correlation coefficient was

computed between perspectives within story. If it were true that the importance of idea units is invariant across perspectives then the Taus would approach 1.00. Table 1 shows that this did not happen. The mean coefficient was .11. The relatively high correlation between the florist and shipwrecked conditions seems due to the fact that there is a degree of overlap between the features that will sustain flowers and which will sustain human life on an island.

Insert Table 1 about here

Experiment 2

Method

Subjects. One hundred-thirteen undergraduate college students in educational psychology courses at the University of Illinois participated in partial fulfillment of a course requirement. Of these, 56 read the House passage and 57 read the Island passage. None of these students had participated in the idea unit rating study.

Procedure. Subjects were run in intact groups ranging in size from 3 to 25 persons. Subjects within groups were assigned to conditions by passing out randomly ordered sets of experimental materials. Two minutes were allowed to read the passage and then 12 minutes to work on the Wide Range Vocabulary Test (French, Ekstrom, & Price, 1963). Next came the free recall test. Subjects were told, "Please write down as much of the exact story as you can on these sheets of paper. If you cannot remember the exact words of any sentence, but you do remember the meaning,

write down a sentence or part of a sentence as close to the original as possible." The free recall was subject paced. After all the subjects had finished, they were instructed to go on to the short debriefing questionnaire. Seven days later, the free recall test was repeated.

Scoring. Two raters scored the recall protocols, checking for the presence or absence of each idea unit using gist or substance criteria. Seven protocols were randomly selected and scored by both raters. The interrater reliability was .93.

Results

The results were analyzed to answer the following questions: (1)

Are the more important idea units in a story better learned or (2) better remembered than less important idea units? (3) Does whether an idea unit will be learned depend upon perspective?

Learning. Table 2 shows the mean proportions of idea units produced as a function of rated importance of these units from the perspective the subject was given. As expected, this was a substantial, significant $(\alpha = .01)$ effect, $\underline{F}(2,202) = 103.4$, $\omega^2 = .23$. Significant effects were also found for story, $\underline{F}(1,101) = 18.05$, and the perspective/idea unit importance interaction, $\underline{F}(8,202) = 5.91$. The interaction resulted from the greater spread of means on the House passage. However, it should be emphasized that the effect of idea unit importance was consistent in both stories and in all perspectives.

Insert Table 2 about here

Memory. An independent analysis was performed to explore whether idea unit importance has an effect on long-term memory. The measure was proportion recalled conditional upon the same idea units having appeared in the protocol obtained shortly after reading the passage a week earlier. Due to absences from the delayed recall session, the sample for this analysis consisted of 45 students who had read the House passage and 47 who had read the Island passage. Only idea unit importance had a significant effect, $\underline{F}(2,160) = 9.18$, $\omega^2 = .03$. As can be seen in Table 2, the greater the importance the better was the recall.

Performance as a function of perspective. The correlations between importance ratings and the proportion recalled on the immediate test for each perspective in each story are shown in Table 3. In five out of six cases the relationship between idea unit rating from the operative perspective ratings and recall was higher than that between the ratings from nonoperative perspectives and recall. Stepwise multiple regression analyses—with proportion recalled on the immediate test as the dependent measure and ratings according to the three schemes, serial position, and "folded" serial position as predictors—were also computed for the six perspectives. Folded serial position was intended to capture both

Insert Table 3 about here

primacy and recency effects; the first and last idea units in a story were coded "1", the second and next to last "2", and so on. A summary of the regression analyses is presented in Table 4. In five of the six cases,

rating from the operative perspective was the first and, in four cases, the only significant (α = .05 for these analyses) predictor to enter the equation. Only the homebuyer perspective failed to give the expected results.

Insert Table 4 about here

Not every idea unit in a story is affected by perspective. In the present study some information was important to more than one perspective and a good deal was trivial no matter what the point of view. A subsidiary analysis focused on idea units whose rated importance did change as a function of perspective. The idea unit ratings were converted to standard scores. Then two clusters of idea units were identified for each pair of perspectives on each story. Placed in the first cluster were units rated 1.0 to 1.5 standard deviations higher under one perspective than the other. Units rated 1.0 to 1.5 standard deviations higher under the other perspective were placed in the second cluster. The criterion was adjusted so that approximately 25 to 30 percent of the idea units in the story would be identified altogether in each pairwise contrast of perspectives. Completed next were six perspective by cluster planned comparisons in which the dependent measure was proportion of idea units recalled on the immediate test. Table 5 summarizes the analyses. Five of the six one-tailed t tests were significant ($\alpha = .05$) and, perhaps more noteworthy, every row of the table is consistent with the hypothesis that perspective can affect importance, which in turn affects learning.

Insert Table 5 about here

Debriefing questionnaire. The first question asked subjects to identify the perspective they had been given, if they had been given one. Every subject was able to recall what that perspective was and no control subjects said they had been given or had taken any particular perspective.

The second question asked subjects who had been given a perspective to check how much of the time they had kept the perspective in mind as they were reading the passage. Responses indicated that the burglar and shipwrecked perspectives were most often kept in mind, perhaps because they somehow suit their stories better. Novels and TV shows provide opportunities for identifying with burglars and shipwrecked persons, while perhaps fewer college students are familiar with or interested in homebuying and floriculture.

The only inconsistent results in the present study were obtained with the homebuyer perspective on the House passage. Subjects in this condition were less conscientious about their role. People who did not keep their perspective in mind in effect placed themselves in the control condition. This could be part of the explanation for the fact that the control rating of the House passage was the best predictor of recall in the homebuyer condition. A subsidiary stepwise multiple regression analysis was performed, dropping the four subjects who indicated they did not keep the homebuyer perspective in mind "most of the time." While the control rating was still the best predictor of recall, $\underline{R}^2 = .39$, $\underline{F}(1,70) = 13.0$, $\underline{p} < .01$, the homebuyer rating now made a significant contribution, $\underline{R}^2 = .45$, $\underline{F}(1,69) = 4.0$, $\underline{p} < .05$.

Discussion

Like every previous study, the present one found that people learn more of the important than the unimportant ideas in stories. What the present study demonstrated in addition is that the importance of an idea unit depends upon perspective: it was an idea's significance in terms of a given perspective that influenced whether it was learned and, independently, whether it was recalled. The first conclusion is that it is inappropriate to speak as though the importance of an idea unit were an invariant structural property of text.

The striking effect of perspective on which elements of a passage were learned is easily explained in terms of schema theory. A schema is an abstract description of a thing or event. It characterizes the typical relations among its components, and it contains a slot or place holder for each component that can be instantiated with particular cases. Interpreting a message is a matter of matching the information in the message to the slots in a schema. The information entered into the slots is said to be "subsumed" by the schema. To illustrate, it may be supposed that a burglary schema would contain as one of its constituents a "loot" subschema. The three 10-speed bikes and Dad's famous paintings mentioned in the House passage qualify as loot, so it is hypothesized that these items are likely to be entered into slots in the loot subschema and become part of the instantiated memorial representation for the story. On the other hand, the leaky roof mentioned at the end of the House passage cannot be understood in terms of a loot subschema, nor a breaking-and-

entering subschema, nor a getaway subschema. There does not appear to be a slot anywhere in a burglary schema that could be filled with information about a leaky roof. Since it does not fit in, this information is unlikely to become part of a memorial representation constructed under the aegis of a burglary schema.

The general form of this argument is that high-level schemata provide the "ideational scaffolding" (Ausubel, 1963) for anchoring text elements. Whether or not a detail will be learned depends upon whether there is a niche for it in the structure. By this line of reasoning the effects of perspective observed in the present study appeared because different high-level schemata provide slots for different sorts of information.

Another possible explanation of the influence of perspective on learning is that more attention is directed to important idea units during reading. These units are rehearsed more often or processed more deeply. The available data does not permit a choice between the attention directing explanation mentioned here and the slot matching explanation proposed above, but it should be noted that both possible mechanisms are compatible with a schema interpretation.

Schema theory also provides a reason for supposing that subsuming structures will have effects on memory independent of those on learning. A high-level schema provides a retrieval plan. By tracing the schema that embodies knowledge of what is true of most burglaries, for example, a person gains access to the aspects of a particular burglary contemplated when the House narrative was read. Most burglaries involve entering

the premises, trying to avoid detection, finding loot, and getting away. The fact that in the House story the side door is unlocked is likely to be made accessible when the general need of burglars to enter the premises is considered. Similarly, the fact that Mom is never home on Thursdays likely will be reinstated by the "avoiding detection" subschema, provided this information filled a slot in that subschema when the passage initially was read. The idea is that the parent schema from which an instantiated representation of a text originally is constructed can later furnish implicit retrieval cues for specific text information (see Bower, in press).

A top-down, schema-directed search of memory cannot turn up information unrelated to this schema, however. An entire text need not be subsumed under a single, dominant schema. Most stories involve secondary themes and incidental happenings. These may be subsumed under schemata that are at most loosely related to the dominant schema. Remotely connected material might be available immediately after reading because it was linked into the dominant schema by a chain of inference. The information in the House story that a tall hedge hid the house from the road could relate, we will suppose for illustration, to a burglar's need to avoid detection. Something like the following reasoning would be required to make the connection: burglars engage in suspicious activities; there could be passersby on the road; they could notice the burglar's activities; they could determine that the activities were suspicious; they might report the suspicious activities to the police; the police might apprehend the burglars; the tall hedge disables this avenue for detection and

capture by blocking the view from the road. There are no explicit grounds in the story to support this chain of inference. Thus at a later date the burglar schema might fail to reinstate one or more links in the chain. The consequence would be that the information in the text about the tall hedge, whose access was mediated by the chain of inferences, would no longer be retrievable. Putting the conclusion in general terms, as time passes a decrease in the accessibility of text elements remotely connected to the dominant schema is predicted.

Of course, this is not the only possible account of the influence of importance on memory for ideas. A traditional account would posit that important elements tend to be overlearned and, as a result, have enough "strength" to appear at both immediate and delayed recall; whereas, a larger proportion of the less well learned unimportant elements are above threshold when recall is first attempted but below threshold a week later. A problem with this explanation is that it sheds no light on what makes an idea important. Importance is a construct alien to this theoretical machinery. The most interesting question is begged.

Rated importance had a much stronger effect on proportion of idea units recalled shortly after reading than on proportion recalled a week later given recall the first time. On its face this fact may seem to mean that processes acting at the time of comprehension and learning have more impact on eventual performance than processes at work later. But this is not necessarily so. There was a short interval before even the first attempt to recall. Unimportant material might become inaccessible

very rapidly, contributing to the difference in recall of important and less important ideas on the first test. Therefore, more significant than the relative magnitude of the observed differences is the fact that rated importance had even a small effect on the memorability of information. Indeed, though many have supposed that important ideas are remembered better, not just likely to be learned better, we have here some of the first really clear evidence that this is the case.

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Table 1

Correlations Among Rankings of Idea Unit Importance According to Perspective

	House				Island		
	Homebuyer	Burglar	Control		Florist	Shipwrecked	Control
Homebuyer	1.0	.15	06	Florist	1.0	.53	18
Burglar		1.0	.27	Shipwrecked	and the little	1.0	07
Control	and the same		1.0	Control	فيمتر ميرية شعط		1.0

Table 2

Mean Proportion Recalled as a Function of

Idea Unit Importance

		Idea Unit Importance ^a	
	High	Medium	Low
Learningb	.48	.36	.25
Memory ^C	.68	.65	.53

a Coded according to the perspective operative while the passage was read.

^bProportion of idea units recalled on immediate test.

^CProportion of idea units recalled on delayed test given recall on immediate test.

Table 3

Correlations Between Idea Unit Rating from Each

Perspective and Proportion Recalled

on Immediate Test

	Rating Scheme				
Operative perspective	Homebuyer	Burglar	Control		
House story					
Homebuyer	.16 ^a	.33	.41		
Burglar	01	.57 ^a	.36		
Control	01	.26	.48 ^a		
Island story	Florist	Shipwrecked	Control		
Florist	.33 ^a	.30	.18		
Shipwrecked	.13	.37 ^a	.29		
Control	04	.11	.49 ^a		

^aCorrelation with rating for operative perspective.

Table 4
Stepwise Regression Analyses Predicting Recall Under Each Perspective

Operative perspective	Significant predictors (in order of entry)	R ²	Standardized regression coefficient	df	Regression <u>F</u>
House story					
Homebuyer	Control rating	.41	.41	1,70	14.1
Burglar	Burglar rating	.57	.57	1,70	34.2
Control	Control rating	.48	.48	1,70	21.4
Island story					
Florist	Florist rating	.33	.33	1,54	6.5
Shipwrecked	Shipwrecked rating	.37	.37	1,54	8.5
	Control rating	.48	.30	1,53	6.2
Control	Control rating	.49	.49	1,54	17.4

Table 5

Recall of Idea Units with Contrasting Importance According to Perspective

	Mean pr	oportion recal	lled	
Perspective contrast	First perspective	Second perspective	Cluster ^a	<u>t</u>
Homebuyer x Burglar	.51	.36	1	3.91*
	.49	.69	2	
Homebuyer x Control	.48	.38	1	1.51
	.47	.52	2	
Burglar x Control	.47	.38	1	3.61*
	.28	.50	2	
Florist x Shipwrecked	.36	.24	1	1.75*
	.45	.51	2	
Florist x Control	.36	.20	1	2.59 *
	.36	.45	2	
Shipwrecked x Control	.37	. 24	1	2.71
	.32	.44	2	

^aCluster 1 includes those idea units on which ratings from the first perspective are greater than ratings from the second perspective. Cluster 2 includes those idea units on which ratings from the second are greater than from the first.

^{*&}lt;u>p</u> < .05

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