

Reading Horizons

Volume 22, Issue 1

1981

Article 11

OCTOBER 1981

Theories of Reading and Implications for Teachers

E Marcia Sheridan*

*Indiana University at South Bend

Copyright ©1981 by the authors. *Reading Horizons* is produced by The Berkeley Electronic Press (bepress). https://scholarworks.wmich.edu/reading_horizons

Theories of Reading and Implications for Teachers

E Marcia Sheridan

Abstract

When reading current research, one is overwhelmed by the proliferation of “new” theories of the reading process. The purpose of this paper is to present the prevailing theories of reading comprehension, to examine their similarities and differences, and determine whether they are distinctly different or represent a general theory of cognitive development specifically applied to reading.

THEORIES OF READING AND IMPLICATIONS FOR TEACHERS

E. Marcia Sheridan

INDIANA UNIVERSITY AT SOUTH BEND

When reading current research, one is overwhelmed by the proliferation of "new" theories of the reading process. The purpose of this paper is to present the prevailing theories of reading comprehension, to examine their similarities and differences, and determine whether they are distinctly different or represent a general theory of cognitive development specifically applied to reading.

SKILLS MODEL

The traditional definition of reading comprehension as it is interpreted by the authors and writers of basal readers and literature anthologies, results in the teaching of reading through "separately defined" comprehension skills, and could be called a "skills model." Skills, separately taught in a logical and sequential order, is thought to result in the improved comprehension of textual material.

The traditional skills model view of reading is a bottom up or data driven processing model. In this view of reading, letters are perceived in a left to right sequence until a word is perceived as a whole, meaning is obtained and related to other words in the sentence, thus activating the dominant schema and its particular concepts.

PSYCHOLINGUISTIC THEORISTS

About ten years ago, the "psycholinguistic model" of reading began to assert that contrary to this view of reading as a sequence of skills which one could teach, reading is in actuality a process of predicting meaning based on the reader's knowledge of oral language syntax, semantics, and phonological cues. In other words, based on the reader's store of information about how language works from his knowledge of oral language, a reader already knows something about how words are ordered and what kinds of meaning words possess in certain contexts.

The early psycholinguistic model is primarily a top down or conceptually driven model where the emphasis is on prediction of meaning. Ultimately, it is the

concepts which generate a search for the data or words to confirm these predictions. (Goodman) Within this perspective Smith defines reading comprehension as making sense out of what you read by using what you know, or the theory of the world which you have in your head. Essentially the reader is expected to use prior knowledge and experience with language to get meaning from print.

A characteristic in the development of both the skills and psycholinguistic theories of reading comprehension is the use of paradigms or models from computer science. (Goodman; LaBerge and Samuels; Ruddell) Rummelhart's information processing model integrates both the top-down and bottom-up processing concepts into his interactive theory of reading comprehension. In this view, while the reader is processing features, letters, spelling patterns, etc., at the same time he or she is also attending to general context, syntax, and the semantic and syntactic environment in which the words occur and from which an interpretation of meaning is made.

SCHEMA THEORY

A more recent theory of reading comprehension is called "schema theory" or the "schema perspective." The goal of schema theory is to describe interaction between what is in the text and how that information is shaped and stored by the reader. (Adams and Collins) The underlying assumption is that meaning does not lie solely in the print itself, but interacts with the cognitive structure or schemata already present in the reader's mind. These schemata represent, in Ausubel's terms, the "ideational scaffolding" or framework for understanding new information. Thus the reader has present in cognitive structure schemata which constitute a cognitive filter through which one views the world and from which one predicts or makes inferences about what is read.

Schemata, according to Rummelhart and Ortony, represent generic concepts which are stored in memory. The way in which a particular concept is stored is not by remembering that isolated event in its totality down to its most basic components, but by identifying those aspects of the event related to other concepts already stored. We make connections between the information in the text and what we already know.

A particular schema would be analogous to a play with its integral structure corresponding to the script of the play (Rummelhart and Ortony). So a schema represents generalized knowledge about a sequence of events and, as a play has a cast of characters and a sequence of scenes, a schema has its parts and sequenced events.

We comprehend the message in a text when we are able to call up the appropriate schema, fitting it into an interpretation which allows us to see the text in a certain way. What we store is the interpretation of the text, which we then call up to make inferences about author's purpose, specific characters, and so on in other similar texts.

Generalized schemata allow us to learn or make sense of a wide array of information or very abstract ideas, and these generalized schemata can be modified or adapted as we learn new information. This idea is almost identical to the Piagetian concepts of assimilation and accommodation except that schema theory limits the input to printed material. In Piaget's definition assimilation takes place when new knowledge is integrated into a preexisting knowledge base. Thus, accommodation occurs when the knowledge base, or a schema is changed in order to fit in new information.

We can construct very specific schema to account for situations and events which occur frequently in our environment. This allows us to process this information faster and easier by helping us focus on a pattern of elements which occurs both in the stored schema and in the text.

A particular reader's interpretation of a printed message is influenced by the reader's personal background and history, knowledge, and the beliefs which are brought to bear in constructing schemata to provide the interpretative framework for comprehending discourse. The effect of prior experience can be so great that a reader may perceive only one interpretation for a text to the exclusion of other possible interpretations. (Anderson, July, 1976)

Anderson and others (July, 1976) conducted an experiment with college students from two different disciplines. Each group was asked to read two passages each of which was sufficiently ambiguous so that it could be interpreted in ways related to either of the two disciplines. Scores on multiple choice and other tests indicated that there was a striking relationship between interpretation and professional discipline. Most subjects were unaware that more than one interpretation was possible for each of the passages. The experimenters stated that the results indicated that high level schemata influenced the interpretations of these passages.

Schemata serve as the basis for making inferences or reading between the lines and for making predictions based on observation of only part of the input. Schemata also serve as the vehicles for searching memory

for previously read material and reconstructing meaning.

IMPLICATIONS FOR INSTRUCTION

We can see that schema theory has placed new emphasis on various parts of the teaching process, particularly the importance of utilizing preexisting knowledge and experience of the reader, setting purposes for reading, and asking appropriate questions before and after reading.

While we have always deplored the teacher who instructed students to "read from pages 91 to 124," the importance of motivating and building interest as well as assessing the knowledge and experience of the reader before having the student read is more important in light of the schema theory. The secondary reading teacher needs to determine whether the students have the general background knowledge or experience to understand what they are reading as well as how to use it. For the remedial student with limited experience in reading, relationships or similarities to vicarious or real-life situations need to be drawn. Students also need to become aware of their personal attitudes and beliefs which can shape their interpretation of a text, giving it a meaning unlike that which the author intended. When an existing schema is inappropriate to account for the information in the text, teacher will need to help students modify the schema or shift gears to another more appropriate schema.

It seems rather evident that if we want students to comprehend a text in a particular way, that we must assist them in setting up a cognitive structure for doing so. It should also be apparent that we cannot presume that students have schemata for all possible purposes for reading. Instruction should provide appropriate models or exemplars so that students can develop schemata which can be used as the basis for inferring when faced with the purpose in another context.

Vocabulary development becomes more than simply introducing words, looking up definitions in the dictionary, and using the words in sentences. Developing vocabulary means developing concepts for words, and seeing how they are alike or different from other words.

Since Socrates (if not before) teachers have recognized the importance and value of questioning. To a somewhat similar end, reading materials have attempted to generate questions at a variety of comprehension levels following a taxonomic mode. The structure of a comprehension taxonomy presupposes that higher order

understandings are based on the acquisition of lower order knowledge. Yet we have all had experiences of students answering so-called higher order or evaluative questions about a text without recalling some literal facts in the story, and giving a low level response to a high level question. As we begin to focus on reading comprehension in a more wholistic way, the overlapping nature of comprehension skills as well as the importance of knowing which to use and how to integrate this into one's cognitive structure becomes more the issue.

Hopefully the most significant result of recent research on comprehension would be to see the demise of the practice of teaching skills in isolation. Anyone who has worked with remedial readers has noted that some of them are unable to transfer the knowledge of skills developed in isolation into context while reading.

The situation of students trying to outguess the teacher must be changed. A teacher must first assess students' mental background, so that new material can be related to what is known.

The process of learning from written material must be made more efficient. Students need to be compensated for taking risks and speculating about meaning. If the teacher will give trust and confidence to students, s/he will find them more willing to relate how a passage may have a specific meaning for them. This process leads to free exchange of ideas about why passages have various interpretations for different people. The class may thus avoid the numbing process of the teacher's evaluating interpretations by "absolute" authority.

CONCLUSION

In examining the various theories of reading comprehension one is struck by the proliferation of different terms, and what superficially appear to be different theories. There seems to be a tendency for researchers to coin a new term whenever they propose a new perspective on the reading comprehension process, leaving it up to the reader to discern whether and how this is different from or similar to other theories. We are beginning to integrate the reading process into larger theories of cognitive development and learning. For the mature reader, reading is an active process and understanding what you read is as much what is already in your head as what is on the page.

BIBLIOGRAPHY

- Adams, M.J. and A. Collins, "A Schema-Theoretic View of Reading," Technical Report No. 32, Center for the Study of Reading, University of Illinois, April, 1977.
- Anderson, R.C., "The Notion of Schemata and the Educational Enterprise; General Discussion of the Conference," Schooling and the Acquisition of Knowledge, R. Anderson, R. Spiro, and W. Montague (eds.), Lawrence Erlbaum Assoc., Hillsdale, NJ, 1977.
- Anderson, R.C. et al, "Instantiation of General Terms," Technical Report No. 10, Center for the Study of Reading, University of Illinois, March, 1976.
- "Frameworks for Comprehending Discourse," Techn. Report No. 12, Center for Study of Reading, University of Illinois, July, 1976.
- Anderson, R.C., R. Spiro, and M. Anderson, "Schemata as Scaffolding for the Representation of Information in Connected Discourse," Technical Report No. 24, Center for the Study of Reading, University of Illinois, March, 1977.
- Anderson, R.C., "Schema-Directed Processes in Language Comprehension," Technical Report No. 50, Center for the Study of Reading, University of Illinois, July, 1977.
- Ausubel, D., Educational Psychology: A Cognitive View, Holt, Rinehart and Winston, New York, 1968.
- Goodman, K., "Behind the Eye: What Happens in Reading," In H. Singer and R. Ruddell (eds.), Theoretical Models and Processes in Reading, IRA, Newark, DE, 1976, pp. 470-496.
- LaBerge, D., and S. J. Samuels, "Toward a Theory of Automatic Information Processing in Reading," Cognitive Psychology, Vol. 6, 1974, pp. 292-323.
- Ortony, Andrew, "Why Metaphors are Necessary and Not Just Nice," Educational Theory, Winter, 1975, 25, pp. 45-53.
- Pearson, P.D. and D. Johnson, Teaching Reading Comprehension, Holt, Rinehart and Winston, New York, 1978.
- Piaget, J., The Language and Thought of the Child, Harcourt Brace, Jovanovich, New York, 1926.
- Ruddell, R., "Psycholinguistic Implications for a Systems of Communications Model," in H. Singer and R. Ruddell (eds.) Theoretical Models and Processes in Reading, International Reading Association, Newark, DE, 1976, pp. 452-269.
- Rummelhart, D.E., Introduction to Human Information Processing, John Wiley and Sons, New York, 1977.
- "Toward an Interactive Model of Reading," in S. Doris (ed.), Attention and Performance, VI, Lawrence Erlbaum Associates, Hillsdale, New Jersey, 1977, pp. 573-603.
- Smith, F., Comprehension and Learning, Holt Rinehart & Winston, New York, 1975.