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ABSTRACT

        A dynamic model of reading that represents the
processes of gaining idiosyncratic integrated meaning from the silent
reading of continuous textual discourse has been developed. It
includes the roles of the affective interactions as well as the
cognitive connections and integrations energized during the silent
reading of a continuous text. The model has been designed to depict
the reading processes that form a continuous cycle of scanning the
graphic display, making associations and anticipated relationships,
deriving corroborated meaning, and taking in additional graphic input
based on the reader's phenomenal field as it interacts with the
graphic display in the build-up of idiosyncratic meaning. (Author)

AN IDIOSYNCRATIC MODEL OF AFFECTIVE AND COGNITIVE

SILENT READING STRATEGIES

Judith A. Langer

SUMMARY

This dissertation presents the rationale for, as well as the depiction
and explanation of an idiosyncratic model of silent reading strategies. Both
the affective and cognitive factors involved in gaining meaning from a text
have been integrated. The major purposes for the development of this model
were:

(1) to incorporate into a generalized process model of siler: reading
those idiosyncratic aspects of the reader's phenomental field which dynamically
flex and interact with the graphic display and help determine the reader's
perceptions of the author's message; and

(2) to incorporate into a model of reading a description of the
connections, which contribute to an expansion of ideas, leading to the develop-
ment of integrated meaning.

This dynamic model of reading represents the processes of gaining
idiosyncratic integrated meaning from the silent reading of continuous
textual discourse. Included are the roles of the affective interactions as
well as the cognitive connections and integrations energized during the silent
reading of a continuous text. The model has been designed to depict the
reading processes which form a continuous cycle of scanning the graphic display,
making associations and anticipated relationships, deriving corroborated mean-
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field as it interacts with the graphic display in the build-up of idiosyncratic
meaning.

An Idiosyncratic Model of Affective and Cognitive

Silent Reading Strategies

In our ongoing quest to acquire a better understanding of the process
of learning through reading, it seems necessary to continue to broaden the
scope of our investigations to include the research and theory accomplished in
related disciplines. Reading research can derive support and additional facets
of significance through the recognition of its connection with other fields of
inquiry concerned with the augmentation of meaning. Aspects of the interrela-
tionships of cognitive psychology, phenemonology, psycholinguistics, linguistics
and reading have been carefully scrutinized, weighed, and synthesized in order
to construct the mode. described in this article. By selective synthesis, this
model is an attempt to offer a comprehensive view of the strategies employed
by readers when they are engaged in gaining meaning from the silent reading of
textual discourse. It is hoped that .search might then proceed from a broader
point of reference in the study of the reading processes activated during the
acquisition of meaning.

Background

A review of the literature indicates that, during the twentieth century,
theory and research regarding the processes involved in gaining meaning from
the reading of continuous discourse have emanated from two distinct conceptual
roots: the holistic, integrative concept of reading, and the subskills,
analytic concept of reading. Although the works of early theorists as Huey
(1908), Thorndike (1917) and Spearman (1923), appeared to focus on such mental
processes as connections, integrations, and anticipations made by the reader
gaining meaning from the printed page, some fifty years of research (1920-1970)
appears to have focused primarily on the task of factoring out discrete and

identifiable subskills which were presumed to comprise reading comprehension. Much of this research seems to have been prompted by the pragmatic desire to develop tests and materials which could immediately be translated into instructional practice in the classroom.

Theorists and researchers during the late 1960s, and particularly the 1970s, began to view the reading process in a broader framework which included the processes of selection, organization, and synthesis of the ideas expressed in light of the reader's personal language, background, and prior knowledge. Goodman (1967) and Smith (1971) viewed reading as an active reconstruction of meaning involving minimal graphic cues in the creation of hypotheses about the meaning of the textual message as well as in the verification, rejection, or refinement of these expectation. As interdisciplinary efforts were undertaken, psychology, sociology, and linguistics offered new and important dimensions which provided reading researchers and theorists with a broader framework from which to view the processes of reading for meaning. Because of the reader's individual cognitive, experiential, and linguistic background, the syntax and lexicon of the reader's output appeared to sometimes be discrepant from the graphic display although the author's intended meaning was retained. The route of investigation, in this current decade, appears to be based primarily on the holistic concept of reading and focuses on acquiring an understanding of the higher level integrative reasoning processes.

Models of reading have been developed by Holmes (1953), Goodman (196/) and Ruddell (1969), among others. Although their theoretical frameworks differed, each attempted to incorporate into his model the experiential and cognitive aspects of the reader as they interact with the graphic display. Although the affective dimensions of the reader were alluded to, how these interact between the reader and the graphic display in contributing to the

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reconstruction of meaning--closer to, or farther from, the author's intended meaning--w   not examined in depth.   In addition, the connection of smaller meaning units into ar expansion of ideas leading to integrated meaning has not been incorporated into a model of reading. A dynamic, process model of the silent reading of continuous discourse should be sufficiently broad to explicitly include the phenomenal field of the reader as this affects the perception of the graphic display, and as this field continually interacts with the text as the reader builds up idiosyncratic integrated meaning.

This researcher, therefore, has developed a dynamic model of reading representing the processes of gaining idiosyncratic integrated meaning from the silent reading of continuous textual discourse. This model depicts the role of the affective interactions, as well as the cognitive connections and integrations energized during the silent reading of a continuous text. This model has been designed to depict the reading processes which form a continuous cycle of scanning the graphic display, making associations and anticipated relationships, deriving corroborated meaning, and taking in additional graphic input based on the reader's phenomenal field as it interacts with the graphic display in the build-up of idiosyncratic meaning.

Conceptual Framework

Huey (1908) made a major contribution towards the understanding of reading comprehension in that he regarded reading as an active thinking and reasoning process which actively involved the reader in the quest for meaning. He viewed reading as a synthesizing or integrative process leading to the formation of holistic concepts. Thorndike (1917), who also regarded reading as a reasoning process, described how some thought units may be over or under potent, may be out of their proper relations, or may be based upon faulty or

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inadequate connections, dependent upon the reader's errors in thinking. The nature of these dislocations or disrelations might be considered to be essential in the formation of integrated meaning.

Fillmore (1968) and Chafe (1970) viewed language as incorporating meaning and sound in a holistic framework which can be measured as a total cognitive process. Finn (1975) demonstrated that connected discourse contains certain information not directly expressed in the surface structures, but which may be derived from the spatial elements which lend themselves to case analysis. Here, we see that intrasentential and intersentential connections either alluded to, or directly stated by the author, must be gained by the reader in the expansion and integration of ideas.

Goodman (1967) and Smith (1971) focused on the interactions of psychology and language in the act of reading for meaning. They viewed reading as a complex psycholinguistic process consisting of scanning the graphic display, anticipating, and processing the author's language through syntactic and semantic dimensions, and interpreting the display relative to the individual reader's language, knowledge, experiences, and objectives specific to that reading task.

Combs and Snygg (1959) described the phenomenological view that every individual is singular and unique. Each person has a world-design, or reference point, from which everything that exists is interpreted. General life experience, as well as specific cultural experiences, help determine the perceptions in the phenomenal field. Since these experiences have effects on perception, they therefore affect reasoning and learning. From Combs and Snygg's view, we can see that the perceptions of each individual are idiosyncratically influenced by unique past experiences. As related to reading, it can be said that one reads the writer's language through the eyes of one's own history.

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As a result of synthesizing these constructs from diverse disciplines, one can view reading as a dynamic interaction between reader and author, involving associations, anticipations, and corroborations, refinements and rejections as the reader derives perceived graphic input which combines with additional inputs in the connection and expansion of ideas leading toward idiosyncratic integrated meaning.

The Idiosyncratic Model of Silent Reading Strategies

This investigator has developed a model which depicts the role of affective interactions as well as cognitive connections and integrations energized during the processes involved in gaining global idiosyncratic meaning from the silent reading of continuous textual discourse. Following is a detailed description of this model and the conceptual framework from which it came into being.

Reading comprehension cannot be measured as right-wrong or yes-no, but rather as falling within an acceptable to unacceptable range of idiosyncratic meaning which may be closer to or more discrepant from the author's intended meaning. This becomes more obvious when we focus on the reader as one who brings an entire personal lifetime of unique experiences to the page. The reader brings to the page an emotional state, self image, values, attitudes towards reading, and a warehouse of schemata stored in long term memory. These affect the reader's perception of the graphic display and therefore contribute to the derived level of meaning.

So too, does the author come to the writing situation with a unique emotional, experiential, and cognitive history. In addition, each author has an image of self as a writer and also has attitudes towards the reading audience. The reader's personal set is constantly interacting with the author's personal set.

If the two are more similar, or if the two have more common language, experiences, and personal histories, there is likely to be a common ground of understanding. However, the reader may be so weighted with past experiences that meaning concurrent with that which the author expected to impart might never be ar from the passage. Further, the reader's mind may wander because of environmental, emotional, or other forces which, in turn, might attenuate meaning gain. For these reasons, analysis of the reading process should not focus predominantly on words, although graphic input is a necessary requisite. We make associations based upon our own unique history and then anticipate meaning or linguistic relationships. The corroboration or rejection of these with respect to subsequent graphic input leads to the build-up of the reader's total idiosyncratic meaning. Ideas, as they connect and interact with one another, are at the heart of reading and the graphic input acts as an instrument to set these ideas in motion.

To better understand the development of idiosyncratic meaning, one must be continually cognizant of the reader's general, as well as task specific, experiences. (See Table 1). The general pre-set (column one of Table 1) combines qualities which cooperatively form the reader's general attitudes, attributes, and learnings. Listed (in Table 1) are just some of the many kinds of cognitive and emotional behaviors which constitute the entire human being. These aspects are fixed in terms of any individual situation and although they do change, it generally requires a series of experiences for actual changes to occur in the pre-set. Although aspects of the pre-set interact constantly during the reading situation, they form the more general qualities of the person's total interactions in daily life experiences.

In addition, the reader brings to the reading situation input affectors which are more specific to that particular task (column two of Table 1).

TABLE 1

ATTITUDES, ATTRIBUTES AND LEARNINGS BROUGHT TO EACH READING TASK

General Pre-Set (Flexible Over Time)	Input Affectors (Flex, Interact and Change During Each Reading Task)
Self Image	Task Specific Pre-knowledge and Experiences
Values	Attitudes Toward Topic, Format, and Graphic Display
Attitudes	Momentary Physical and Emotional State
Schemata	Interaction with Specific Reading Environment
Language	Semantic, Syntactic, and Lexical Proximity to Author
Interests	Pre-knowledge of Format, Writing Pattern, and Author's Style
Physiological State	Understanding the Nature of the Task
Intelligence	
Personality Pattern	

The reader meets the reading situation with task specific pre-knowledge and experiences; attitudes toward that topic, format, and graphic display; an emotional or physical state at that moment; and interaction with the specific reading environment; semantic, syntactic, and lexical proximity to the author; pre-knowledge of format, writing patterns, and writing style; and an understanding of the nature of the task. These form the task-specific factors which the reader brings to the page and are most likely to affect and be affected by the reader's perception of the author's meaning throughout the reading expereince. These are the ever changing aspects of the reader which constantly interact with the graphic display.

As the pre-set and affectors work on the graphic display and the reader gains idiosyncratic meaning from that passage, so also can that idiosyncratic

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meaning and its change on the affectors work on the pre-set parameters. Any resulting change in the pre-set becomes an integral part of the reader which is then brought to each additional reading, as well as to all other experiences.

Following is a model which depicts the psycholinguistic processes through which a reader goes in attempting to gain global meaning from continuous textual discourse. This model has been designed to depict the reading processes which form a continuous cycle of scanning the graphic display; making associations and anticipated relationships based on pre-set and input affectors as they interact with the graphic display; deriving corroborated meaning; taking in additional graphic display; and so on.

In the diagrams of the model which follow, squares represent a major process function, lines represent the flow of a process from one function to the next (with arrows indicating the direction of that flow), and diamonds represent decisions which are points where a branch to alternate paths is possible based upon variable conditions.

Model (see Figure 1)

At the START, the reader brings to the reading situation an individual pattern of PRE-SET and INPUT AFFECTORS. These constitute the many aspects of human attitudes, attributes, and learnings—the type and level of which are specific to at individual at any given moment.

Insert Figure 1

The input affectors are the task-specific factors of those attitudes, attributes, and learnings and tend to flex and interact alone or in various combinations in a variety of manners as the reader interacts wit. the specific material being read. Therefore, the input affectors more readily change in patterns of constant flex and interactions during the individual's reading of a particular text.
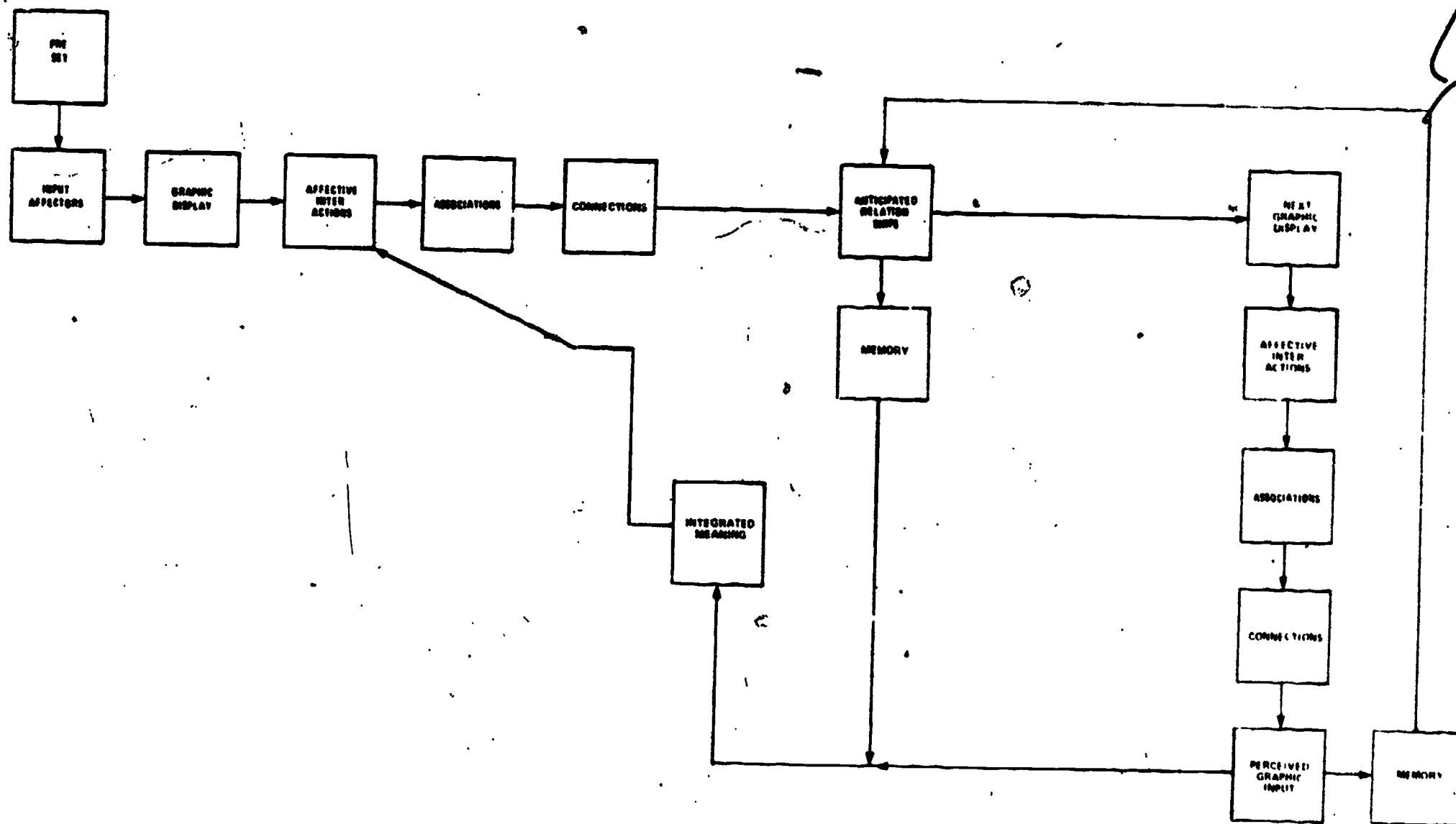
FIGURE 1   An Idiosyncratic Model of Silent Reading Strategies — Phase I

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Although the per-set is subject to change throughout life of the individual, these specific aspects are more fixed in terms of each individual reading situation and tend not to change or be changed within the confines of any one experience.

The first GRAPHIC DISPLAY which the reader takes in is the first graphic chunk which is viewed in the initial scan of the text.

This display interacts with certain of the input affectors, and may, in fact, cause discrete small changes in the affectors. This process is termed AFFECTIVE INTERACTIONS.

As a result of these interactions, specific cognitive, experiential, and emotional ASSOCIATIONS are made in the mind of the reader.

These associations combine with the reader's linking of semantic/ syntactic textual units to form CONNECTIONS.

It is from these connections that the reader makes ANTICIPATED RELA- TIONSHIPS which the reader then expects to have corrobora·   by the author. The anticipated relationships are linguistic (both semantic and syntactic) in nature and are based upon the reader's affectors constantly interacting with the graphic display to cause a linguistic expectation set in the mind of the reader.

The anticipated relationships are held in MEMORY for corroboration, rejection, or ultimate revision.

For the purpose of this model, memory is not sub-divided into short or medium term. Graphic display may be held in memory for varying lengths of time by an reader during any portion of any passage. The leng   f time it is held in memory may be dependent upon the reader, the text, and the interaction between the reader and any specific portion of the text. These same factors also affect the size of the graphic chunk which the reader selects and places

memory.

The reader then scans the text for the NEXT GRAPHIC DISPLAY.

This display is now subject to interaction with the AFFECTORS which may have flexed or been changed due to preceding interaction with the text.

As before, AFFECTIVE INTERACTIONS with concomitant changes in the affectors may again result in new ASSOCIATIONS.

These associations combine with the reader's linking of semantic/ syntactic textual units to form additional CONNECTIONS.

The author's text is therefore processed by the reader idiosyncratically as PERCEIVED GRAPHIC INPUT.

The reader's perceptions are then held in MEMORY from which they will later be retrieved from subsequent corroboration.

If the anticipated relationships are corroborated, they add to the reader's development of INTEGRATED MEANING. Integration is the process of the connection of smaller ideas and relationships to larger and larger expansions of ideas and relationships.

Based on the integrated meaning so far compiled by the reader, new affective interactions may result leading to further associations. These combine in the mind of the reader to form new anticipated linguistic relationships, based on extrapolation, which again are held in memory to be compared and corroborated by succeeding graphic display and associations, and so on, in the attempt to gain further integrated meaning. The cycle will continue until the entire passage has been processed and the reader has arrived at blobal idiosyncratic meaning in that the reader has connected the smaller meaning units into integrated ideas and then has related these to the holistic framework of the entire passage. It is through these processes that the reader arrives at global meaning. Because this meaning has been arrived at based

upon the reader's affectors constantly interacting with the specific text, global meaning may differ somewhat from reader to reader or from experience to experience and therefore will be idiosyncratic.

The reader may leave the reading experience with any degree of change in affectors and even with a propensity towards changes in pre-set which may then be reinforced or denied by future experiences. Meaning Build Up Through Affective and Cognitive Interactions--an additional diagram (see Figure 2) is presented to graphically depict the continual build up of idiosyncratic inte- grated meaning as the reader processes an entire text. This diagram presents a simpler view of the processes previously described. Only the key steps are presented to show how the interaction between the reader and the author's message is a dynamic one in that affective interactions are constantly taking place in the mind of the reader with each new phase of acquired integrated meaning and each new intake of graphic display.

The reader's first cycle through the process is depicted by the lines

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Insert Figure 2 about here

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identified by (1) in Figure 2. As previously discussed, the reader's AFFECTIVE INTERACTIONS with the GRAPHIC DISPLAY lead to ASSOCIATIONS, CONNECTIONS, and ANTICIPATED RELATIONSHIPS, which with CORROBORATIONS, yield INTEGRATED MEANING. Based on this integrated meaning there will be new affective inter- actions with the graphic display on the second cycle through the process (2), leading to an additional finite amount of integrated meaning gain. Further integrated meaning gain may occur on the third (3) and subsequent cycles of the cprocess until the last (N) cycle is completed and reading ceases with the attainment of global meaning. From this discussion, it becomes evident that
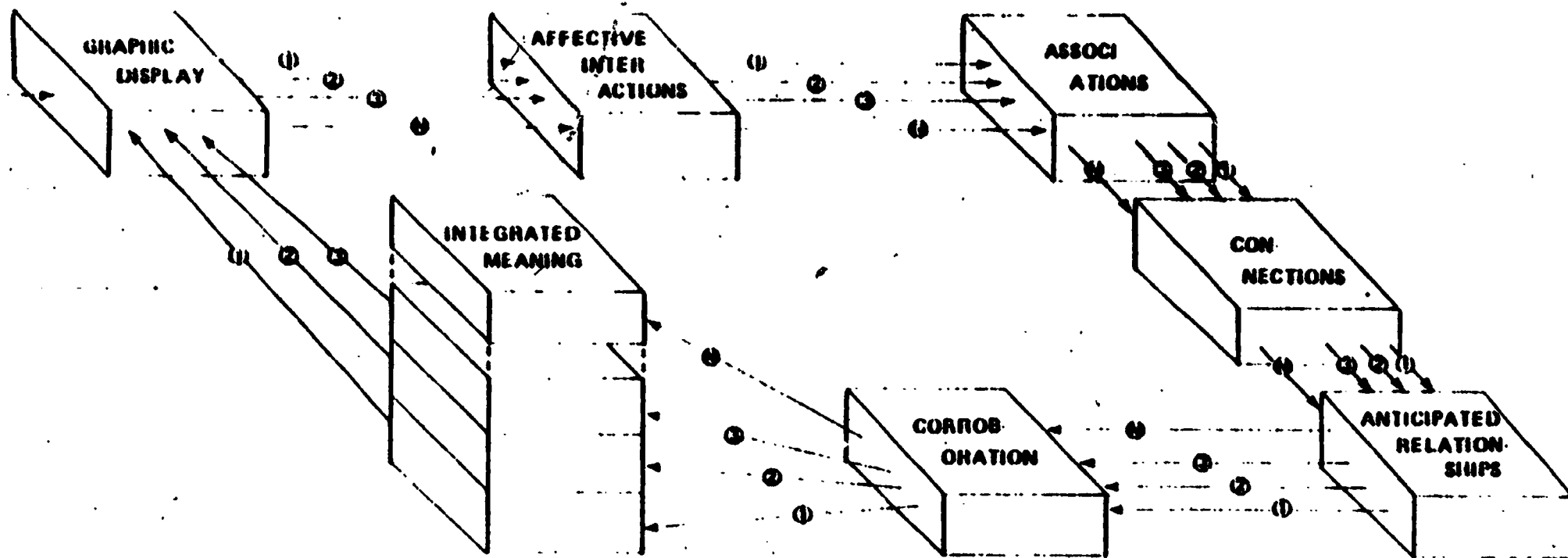
FIGURE 2   Meaning Build-up Through Affective and Cognitive Interactions

global meaning, as represented in this model, is the summation of the individual meaning gains attained as a result of affective and cognitive interactions continually occurring during each cycle through the reading process. The level of global meaning which the reader gains from discourse is the result of the relative magnitude of the integrated meaning, the additional meaning, and even meaning loss experienced by the reader during the reading act.

It might be possible to provide a separate diagram for each individual reader engaged in each separate reading experience. Surely, the processes differ somewhat with each new textual content, format, language, and style as they also differ based upon the momentary emotional and physical set of the reader. However, at this point, it seems that this model can be universally applicable in portraying the processes activated during silent reading. Using the model, it might then be possible to provide a separate diagram for a particular reader engaged in each separate reading experience. Conceivably an analytical diagram could then function in diagnosis or even as a different and comprehensive mode of individual progress report.

Implications For Further Research

Since the idiosyncratic model presented here was meant to be a generalized model, it cannot account for every strategy employed by every reader in every situation. Specific strategies may vary from reader to reader based upon the instructional methodology and instructional environments to which the reader has been exposed, the age and/or learning stage of the reader, as well as the reader's willingness or inhibition to explore a variety of possible strategies. Strategies may also vary for any given reader based upon the content, format and/or language of any specific text.

Because the limitations of any generalized model, it is suspected that the constructs depicted in this idiosyncratic model may serve as a basis for many process oriented studies using good and poor achieving readers of all ages and all socio-economic and ethnic groups to learn whether, or just what strategies appear to be utilized by the more and less successful readers. Longitudinal studies might be undertaken to observe developmental changes in the strategies utilized by individual readers over time. Comparative studies might also be devised to examine the divergent strategies utilized by beginning readers instructed by varying methodologies and to continue follow-up studies designed to determine whether early instructional methodology affects the strategies utilized by the older reader or any sub-group of older readers. Researchers, utilizing the idiosyncratic model as a base, might attempt to identify readers who operate with a constricted array of strategies and to attempt through strategy probing interviews and non-directive instructional techniques to encourage the readers to explore and utilize more efficiently the variety of more successful strategies delineated in the model. It also seems important that researchers turn their attention towards the development of partial models which are limited to the specific strategies energized as the individual reader processes specific kinds of textual material.

APPENDIX

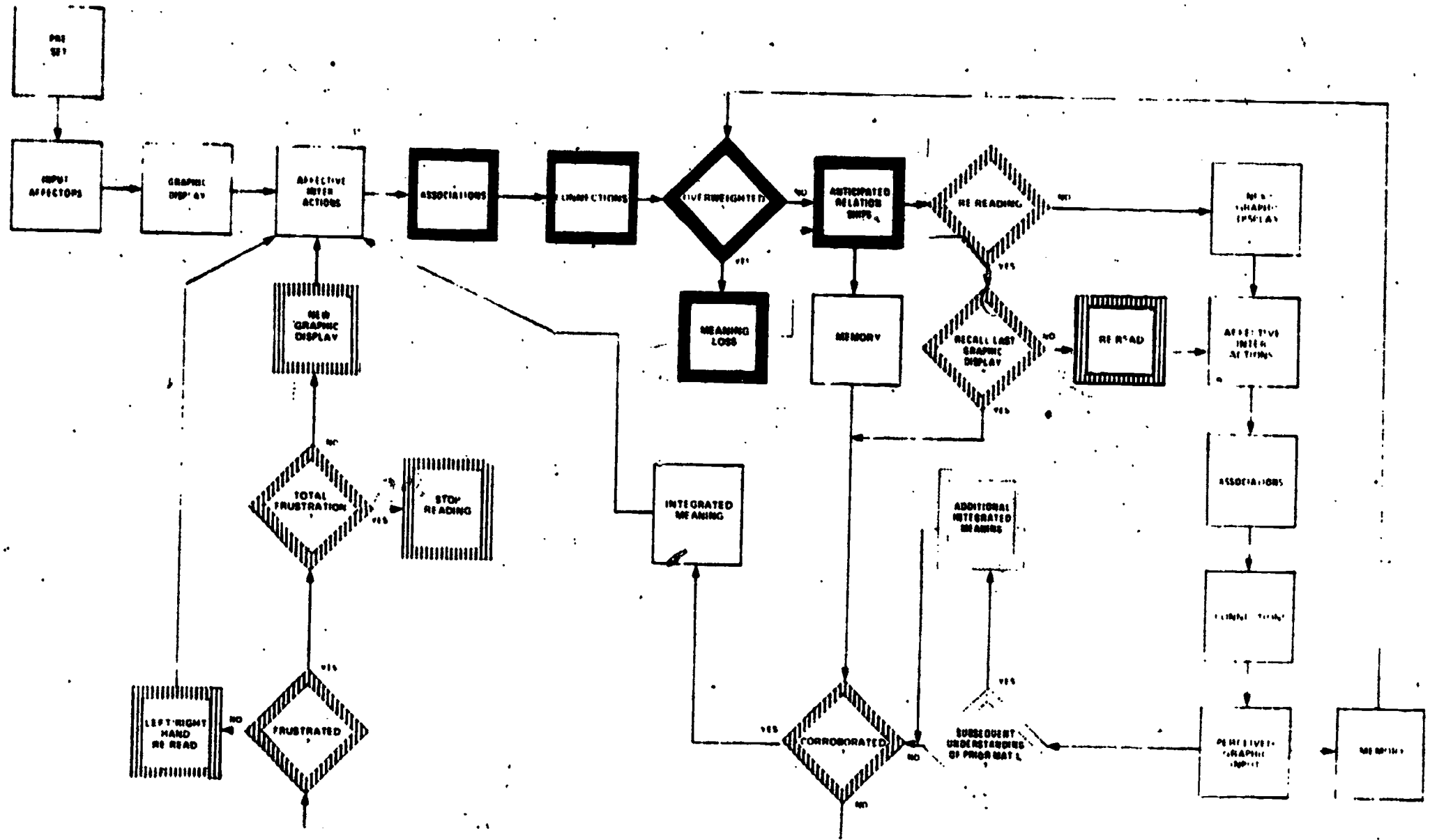(Additional phases of the model which are described in the dissertation, but not included in this article.)

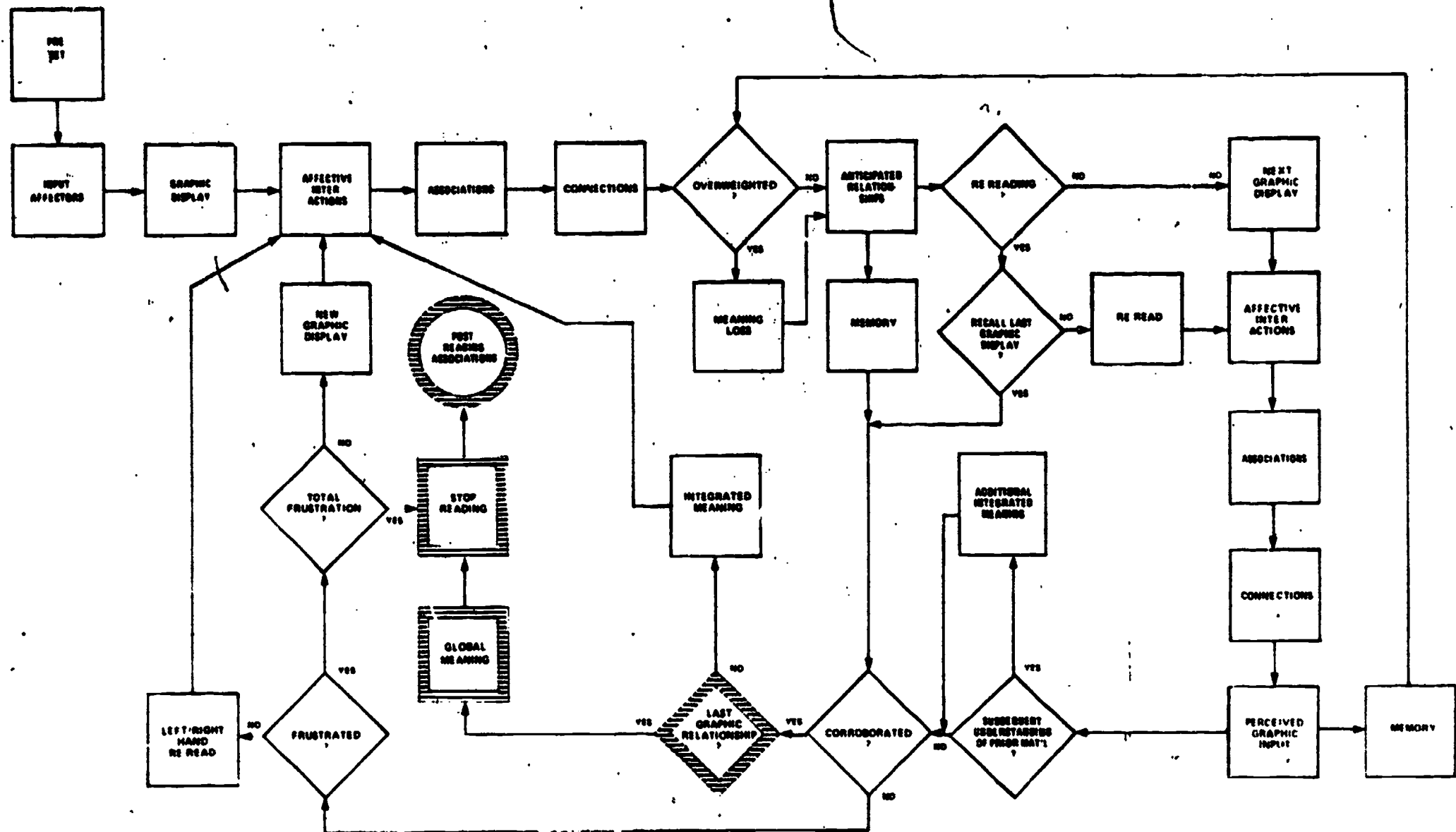**FIGURE 2   An Idiosyncratic Model of Silent Reading Strategies — Phase II**

FIGURE 3   An Idiosyncratic Model of Silent Reading Strategies — Phase III

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